WORKPLACE INTERNET LEISURE BROWSING, RECOVERY EXPERIENCES AND OCCUPATIONAL WELL-BEING

By

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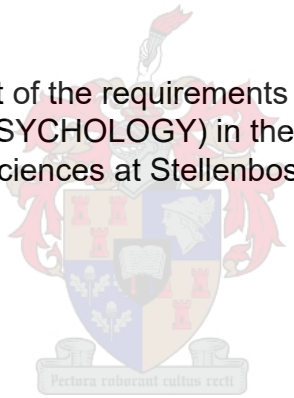

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Abstract

Historically, major breakthroughs in technology have led to significant improvements in the productivity of organisations. These technological breakthroughs have also completely changed the way that organisations, as well as the people in them, function. The latest improvements in communication technologies, like the internet, are continuing with this trend.

With an estimated 5 billion internet users globally on December 31, 2020, it would be difficult to overestimate the effect that the internet has had on both organisations and their employees (Internetworldstats, 2021). As with many things however, the improvements in internet access have brought about several benefits, but also many challenges. One of the most prevalent challenges that organisations are facing as a result of the internet, is the ease with which employees can now surf the internet for personal reasons during working hours. This is often referred to as workplace internet leisure browsing (WILB). It is estimated that employees on average spend between 9.4% and 13.3% of their worktime on WILB (Jandaghi et al., 2015; Lim & Chen, 2012).

Traditionally WILB research, as well as the managerial practices that stemmed from it, was underpinned by the belief that any worktime spent on non-work activities will automatically lead to a loss of productivity. More recently however, research on the impact of WILB, as well as the effects and effectiveness of WILB countermeasures, has suggested that the way that we think about WILB might need to be reconsidered (Coker, 2013; Janicke et al., 2017; Sheikh et al., 2015). The disparities in the literature led to the genesis of the present study, which aims to gain a better understanding of the impact that WILB has on employees.

The present study is centred around the following research initiating question: “Why is there variance in the occupational well-being amongst South African office workers?”. It attempts to

answer this question by analysing the relationship between WILB, recovery experiences and occupational well-being.

An ex post facto correlational design with a convenience sample of 101 office workers was utilised. The results revealed that two of the eight hypothesised paths in the structural model were statistically significant. These findings indicated that WILB has a substantial influence on the two recovery experiences variables that were employed in the study. The results of this research calls for further empirical studies on the included variables, especially under circumstances where the country isn't in a state of a national lockdown.

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1. Background to The Study

1.1 Introduction

The world that we live in today has largely been shaped by our reliance on organisations to provide us with goods and services. An organisation can be defined as the consciously coordinated activities of two or more people (Theron, 2017). It would be extremely difficult, perhaps impossible, to live in such a way that the existence of organisations has no effect on our day to day lives. We are constantly interacting with and making use of the products and services of organisations. While we are asleep, we rely on our alarms to wake us up early enough for us to shower, get dressed, eat, and drive to work. There we make use of paper, pens, laptops, the internet, coffee machines, chairs, etc. In none of these activities can we separate ourselves from the products of organisations. Perhaps it would be possible to escape organisations if you live isolated in one of the very few countries without a government, wearing only clothes that you made yourself, and eating only the food that you catch or grow with your own hands. This is however not the reality of the majority, if not all, of the people on earth.

1.2 Why Organisations Exist

Since it is nearly impossible to escape the impact of organisations on our lives, the question that then follows is why they exist. A theory that could answer this question is Barnard's technological imperative. This theory argues that organisations form when the technological conditions make demands that are above the capabilities of a single person. Ouchi (1980), however points out that these conditions do not necessarily require organisations to resolve problems, since individuals can find other solutions, like using machinery, to help meet these demands. Ouchi (1980) also criticizes the argument that organisations exist as to offer its members inducements that are greater than what it receives from them. This argument, although providing a valid understanding of why organisations continue to exist, doesn't explain how

organisations manage to create a whole that is larger than the sum of its parts, and in doing so, provide their members with more than what they have contributed (Ouchi, 1980). Another possible explanation as to why organisations exist, is to serve the function of mediating economic transactions at a lower cost than what a market mechanism can (Ouchi, 1980). Under this explanation, efficiency becomes the determining factor in explaining the purpose of organisations (Ouchi, 1980).

Perhaps the best explanation for why organisations exist comes from Theron (2009). He explains that organisations exist to "combine and transform scarce factors of production into products or services with economic utility" (Theron, 2009, p. 1). This explanation also builds on the idea of efficiency, and implies that to survive, organisations must take factors of production, and transform them into products or services in a way that will create maximum economic utility (Theron, 2009).

The idea of creating maximum economic utility could be used for explaining why organisations have developed in the past, as well as why they will keep developing in the future. Even when societies undergo revolutions, changing nearly all aspects of how organisations function, creating maximum economic utility will remain a key component.

When looking at the First Industrial Revolution, taking place in Britain during the 18th century, we see organisations changing drastically (von Tunzelmann, 2003). The adoption of machine methods allowed for the mechanisation of the transformation of inputs (von Tunzelmann, 2003). This era consisted of small producer organisations, where decisions were made based upon Adam Smith's "invisible hand", i.e., markets (von Tunzelmann, 2003).

Many things changed with the arrival of the Second Industrial Revolution in the United States of America during the 19th century (von Tunzelmann, 2003). Here, automation and mechanisation changed the way that production took place (von Tunzelmann, 1997). The Second

Industrial Revolution brought about the dominance of large corporations, famously allowing the development of the moving assembly line of Ford (von Tunzelmann, 1997).

Both of these revolutions brought about serious change in nearly all aspects of organisations. It changed the size of organisations, how production took place, the role of labourers, what decisions were based on, etc. The one thing that remained constant however, is the reason why organisations exist.

1.3 The Impact of Information Technology During the Third and Fourth Industrial Revolution

In the Third Industrial Revolution, breakthroughs in communication and information technologies, like the internet, allowed organisations to once again change the way that they function. Initially, the popular approach to using information technology was for assisting with or automating the activities of organisations, but this approach has changed over time (Apăvăloaie, 2014). Information technology became a main driving force, rather than just an extension, of organisations (Apăvăloaie, 2014). This is due to the fact that the evolution of the internet and other information technologies have provided organisations with completely new opportunities, as well as that it caused significant changes in how products are designed, produced, distributed, sold and bought (Apăvăloaie, 2014; Manyika & Roxburgh, 2011).

The Third Industrial Revolution is characterised by what von Tunzelmann (1997) terms “network capitalism”. The interaction between organisations is a key characteristic in network capitalism (von Tunzelmann, 1997). There has been an increase in the interaction among organisations of all sizes. The fact that the internet has changed how organisations interact, has had several implications for organisations, one of which is a new dynamic in market competition (Wang & Zhang, 2015). There is a popular belief that the internet lowers the barriers to entry and allows more competitors into the market (Wang & Zhang, 2015). This would imply that the internet

raises the amount of competition in the market. Although there is some truth to this idea, the internet's impact on the market is not as straight forward as this belief makes it out to be. This theme of the internet's complex impact on organisations is one that would be brought up again several times in this dissertation. For the moment, the focus will be on the internet's impact on competition in the market.

Wang and Zhang (2015) found that the internet might, contrary to popular belief, in some instances reduce competition. They explain that the internet, just like other tools, can be used more effectively by some than by others. Not all companies have the same capabilities and resources for using the internet (Wang & Zhang, 2015). Larger companies tend to be in a better position to use the internet to their advantage, since they have more resources available. These large companies can overpower smaller companies with their use of the internet in the market (Wang & Zhang, 2015). In this sense, although the internet may have lowered market entry barriers, it also squeezes the market space, creating a winner-takes-all economy (Wang & Zhang, 2015).

It is clear that the internet should not be viewed as a tool that simply levels the playing field, but rather as one that can have serious implications for the success of organisations. Wang and Zhang (2015) propose that since competition takes place in a single virtual market, organisations should act aggressively with their use of the internet for business purposes. This idea is backed up by empirical studies done by Hand (2001). These studies indicated that internet marketing only showed positive value generation for the largest spenders (Hand, 2001).

The technological conditions of the Third Industrial Revolution paved the way for the current Industrial Revolution, i.e., the Fourth Industrial Revolution. So far there is no unanimously agreed-upon definition of this phenomenon. It is however commonly accepted that in this industrial revolution, economies of scope and economies of scale are combined to generate a fusion of new technologies which results in yet another change of production processes

(Postelnicu & Câlea, 2019). These production processes are now largely monitored by computers, cloud computing, and the internet of things in what is referred to as smart factories. The implementation of these technologies substantially reduces production costs, while at the same greatly increasing efficiency and productivity (Postelnicu & Câlea, 2019).

The Fourth Industrial Revolution is estimated to lead to a loss of over seven million jobs as industrial robots begin to execute the tasks that were typically carried out by people (Postelnicu & Câlea, 2019). With the growing importance of new technology comes an increased demand in workers who can contribute to the production of this technology. It is therefore also estimated that roughly two million jobs will be created in sectors focussing on programming and building robots (Postelnicu & Câlea, 2019).

1.4 The Impact of the Internet on People

According to the website, internetworldstats.com, there were 4,949,868,338 internet users in the world on December 31, 2020. The number of users around the world has grown with 1271% from 2010-2020 (internetworldstats, 2021). As can be expected, the global impact of the internet has been massive. It is being used all over the world, in every sector, and in most, if not all, companies (Apăvăloaie, 2014). In 2011, the McKinsey Global Institute conducted a study, focusing on the impact of the internet on economic growth in 13 countries that cumulatively account for 70% of the world's economy (Manyika & Roxburgh, 2011). They found that the internet is responsible for 3.4% of the GDP of those 13 countries. This is 1.2% higher than agriculture's contribution to GDP (Apăvăloaie, 2014). The study estimated that the internet accounted for 11% of GDP growth from 2006-2011. The per capita GDP increase due to the internet from 1996-2011 was on average $500, showing that the internet achieved in 15 years what the Industrial Revolution of the 19th century took 50 years to achieve (Apăvăloaie, 2014).

The internet also has a direct impact on consumers, who can now access more information than ever before, empowering them to make better decisions (Manyika & Roxburgh, 2011). Consumers can now quickly and easily compare prices, find hard-to-find products, read up on the attributes of different products, etc. (Manyika & Roxburgh, 2011). Online prices are also on average 10% cheaper than their offline counterparts. Statista.com estimated that worldwide e-retail revenues will nearly double from 2017, where it amounted to $2.29 trillion, to a predicted $4.48 trillion in 2021 (Chen et al., 2018).

The internet doesn't only benefit people as consumers, but also as individuals and members of communities (Manyika & Roxburgh, 2011). People are now, more than ever, turning to the internet for public information, knowledge and personal connection. Currently we are seeing the internet being used to spread information about and gather support for social uprisings several times a year. The use of the internet for supporting social movements is not a new phenomenon, however. The internet has been playing an important role in social movements since its early days. An example of this is how the internet was used to connect and coordinate activists, groups and social movement organisations during the anti-World Trade Organisation mobilisations in 1999 (Laer & Aelst, 2010). As the internet has evolved and grown in popularity, its role in such movements has gone past simply providing support. There are now "internet-based" social movements, which exist purely because of the internet. Some examples of these include hacking websites, "email bombing" and online petitions (Laer & Aelst, 2010).

Using the internet also has a psychological impact on individuals. Many researchers have focused on the effect of internet use on psychological well-being, but there is still no consensus regarding whether internet use has a positive or a negative impact on psychological well-being (Huang, 2010). Research has found that the main application of internet is for the use of interpersonal communication (Huang, 2010). The overall effect of this, however, is one that still causes some debate. Internet use is a hugely multi-faceted construct. The internet ranges from

serving as a platform for sending a simple email, to being the base of online gaming competitions where participants spend the largest portion of their daily lives on the internet. It would, therefore, be extremely over-simplistic to believe that one can determine whether the psychological impact of internet use is purely positive or purely negative. This inherent complexity explains why there is a lack of consensus regarding its effects. Consequently, as can be expected, the research that has been done on the relationship between internet use and psychological well-being has provided a mixed bag of findings (Huang, 2010).

1.5 The Impact of Personal Internet Use at Work

The preceding section referred to internet use in people's everyday private lives and mentioned that internet use can potentially impact individuals' psychological well-being. Internet use is however not only limited to people's private lives anymore. Most organisations have offices where employees have access to computers that are connected to the internet. Given the preceding argument regarding the importance of the internet for businesses, it makes sense that most organisations should provide their employees with internet access. This access to the internet however provides employees with the opportunity to use the internet for personal reasons during working hours.

In a survey of over 2000 employed Americans, 62% of the participants reported that they spend time on social networking websites during the workday, with only 14% of them limiting their personal internet use to lunch hours (Mercado et al., 2017). Interestingly, 10% of the aforementioned group indicated that 30% or more of the time in their workdays are spent on social media websites. In another study, 89% of employees reported that they spend time on surfing the internet for personal reasons during the workday, with 57% of the group reporting that they do this for at least an hour each day (Mercado et al., 2017). Other estimates regarding the total time that employees spend on the internet for personal reasons range from 9.4% to 13.3% of their

worktime (Jandaghi et al., 2015; Lim & Chen, 2012). With the abovementioned estimates, employees will, on average, with a 9-hour workday, spend about 61min on WILB activities.

Considering the aforementioned statistics, it is clear why many organisations attempt to limit their employees' personal use of the internet at work with software that denies access via office computers to certain websites, like Facebook and YouTube (Sheikh et al., 2015). Although such strategies might have some utility in deterring employees from using the internet for personal reasons at work, given the improvements in cell phone technology, employees who want to browse the internet for personal reasons can simply reach for their phones if their favourite websites are blocked on the office computers (Batabyal & Bhal, 2020). It is therefore nearly impossible to completely deter employees from using the internet for personal reasons at work. Additionally, some suggest that internet monitoring methods might exacerbate the issue (Sheikh et al., 2015). Interestingly, research has also demonstrated that many employees who are faced with an increased severity of sanctions for not complying with internet usage policies become less likely to comply with those policies (Glassman et al., 2015).

It is for this reason that there is a growing popularity in research focussing on the impact that personal internet use at work has on employees. Like the research in the preceding section, there seems to be a lack of consensus regarding the ultimate impact of personal internet use at work. The disparities in opinions are already visible upon inspection of the terminology used when describing personal internet use at work. Some researchers are concerned with the productivity loss associated with personal internet use at work, and consequently refer to it with negatively loaded terms like "cyberloafing" or "cyberslacking". This line of reasoning tends to be based on the displacement hypothesis, which explains that time spent on using one medium replaces the time that is spent on others (Huang, 2010). In this context, cyberloafing is expected to lead to a decrease in performance, since employees are spending time on something that is not work-related.

The opposing argument is that cyberloafing will not necessarily lead to decreased productivity. Although the terms “cyberloafing” and “cyberslacking” are still present in this stream of research, other terms, like workplace internet leisure browsing (WILB), are more common. Some researchers, like Lim and Chen (2012), have found that most respondents in their study believed that WILB helped them with their work. Others have investigated the psychological processes behind why WILB could be beneficial for employees (Coker, 2011). Research suggests that the breaks that WILB provide ultimately hold positive psychological effects for employees (Coker, 2013; Janicke et al., 2017). These breaks can hold a range of psychological benefits, like lowering workplace stress, increasing the ability to make effective decisions and restoring cognitive resources (Coker, 2011).

Perhaps one of the most valuable approaches for organisations in understanding the influence of WILB on employees, is to determine how WILB influences the occupational well-being of employees. Drawing upon both WILB and other work break research, it is evident that the personal internet use at work should affect the occupational well-being of employees.

1.6 Relevance of the Study

The impact of the internet on individuals, like its impact on organisations, is extremely complex. It is this complexity that poses an enormous challenge for the fields of Industrial Psychology and Human Resource Management (HRM). The HRM function in organisations has the responsibility of contributing towards organisational success by affecting the work performance of employees (Theron, 2009). The HRM function is also largely responsible for the motivation and well-being of the workforce (Theron, 2009). Given that the internet is so incorporated in our daily lives, as well as in organisations, it is crucial to understand its impact on employees. The effect that WILB has on employee occupational well-being is especially important to the HRM function since it will likely influence employee work performance.

Without a valid understanding of the relationship between WILB and occupational well-being, human resource practitioners will struggle to deal with this phenomenon in a way that will increase employee work performance and ultimately contribute to organisational success.

1.7 Research Initiating Question

The following research initiating question drove this study: What causes variance in the occupational well-being of South African office workers?

1.8 Research Objectives

The study focused on the following research objectives in order to address the research initiating question:

- **Objective 1:** Determine the levels of engagement and burnout in a sample of South African office workers.
- **Objective 2:** Develop a conceptual model that depicts the salient variables explaining engagement and burnout.
- **Objective 3:** Develop and test a structural model that depicts the salient variables explaining engagement and burnout.
- **Objective 4:** Interpret the results and managerial implications of the research findings and recommend practical interventions for organizations.

2. Literature Review

2.1 Introduction

The core aim of this study was to develop and empirically test a structural model, based on current literature, that explains the antecedents of variance in occupational well-being among South African office workers. This chapter serves two purposes. Firstly, a literature review will investigate the relevant constructs of the study. To achieve this, it will start with a short overview of two resource recovery models. Thereafter, the constructs of these models, as well as the constructs that are relevant to the proposed occupational well-being model, will be theoretically defined and explained. The second purpose of this chapter is to investigate the relationships between the relevant constructs. Consequently, the proposed hypotheses will be stated. These hypotheses will ultimately culminate in the proposed occupational well-being conceptual model.

2.2 Overview of the Relevant Recovery Models

Perhaps the two most common theories of recovery are the Effort-Recovery (E-R) Model and the Conservation of Resources (COR) Theory. These two theories have been utilised in several recovery studies, and are especially valuable in studies that employ a psychological viewpoint (Pennonen, 2011).

2.2.1 The Effort-Recovery Model

The E-R model describes the process by which employees respond to the demands that work places on them. This makes it particularly relevant to understanding the impact that workday breaks have on workers (Hunter & Wu, 2015). Central to the E-R Model is the idea that employees must expend effort to meet work demands (Pennonen, 2011). The E-R Model states that normal load reactions, like fatigue and a poor ability to concentrate, are unavoidable and are caused by the effort expenditure at work (Pennonen, 2011). The process through which this occurs will be elaborated on below.

According to the E-R model, work demands lead to the expenditure of resources. Resources, in this context, refer to a wide range of valued assets, with energy being the cornerstone resource (Hunter & Wu, 2015). Energy encompasses both energetic activation, which refers to the subjective feeling of being energised, and physical energy, which refers to having the physical capacity to perform work. In addition to energy, concentration and motivation have also been identified as being relevant to the process of resource depletion, protection and production (Hunter & Wu, 2015). Although physical energy is important for allowing employees to perform the actions that are required to do their work, the expenditure and recovery of psychological energy is what this study is focused on.

People unfortunately have a limited supply of the abovementioned resources. Consequently, these resources can become depleted, and will periodically need to be given the opportunity to be recovered (Hunter & Wu, 2015). Prolonged periods of physical and mental effort expenditure without the opportunity for recovery to take place, will ultimately drain these resources and lead to negative outcomes like increased negative affect and fatigue (Hunter & Wu, 2015).

According to the E-R model, resource-recovery can only occur when employees are no longer faced with work demands. Only when this happens can load reactions be released, allowing the psycho-physiological systems to return back to their base levels (Pennonen, 2011; de Wijn & van der Doef, 2020). It can therefore be said that the E-R model claims that recovery occurs when employees experience a temporary relief from the demands put on them. (Pennonen, 2011).

According to the E-R model, incomplete recovery will result in employees having to expend extra effort to meet the demands put on them. This is due to them already being in a tired and sub-optimal condition when attempting to meet these demands (Pennonen, 2011). Chronic reactions can develop when load reactions accumulate in cases of long-term workload with incomplete recovery (Pennonen, 2011). Accumulations of load reactions due to incomplete

recovery can lead to impaired well-being, and might manifest in conditions like prolonged fatigue and chronic tension (Pennonen, 2011).

2.2.2 The Conservation of Resources Theory

The COR theory also provides valuable insights into how the process of recovery works (Rodriguez-Muñoz et al., 2012). The COR theory can be considered as a motivational theory. It posits that, in order to meet job demands, people have to strategically draw on limited resources (Bettini et al., 2020). The COR theory states that people have a basic motivation to obtain, retain, foster and protect the things that they value. These things are considered as resources, which in this context, can include material objects, personal characteristics (e.g., high self-esteem), conditions (e.g. financial security) and energies (e.g., knowledge) (Pennonen, 2011). Resources can either be valued for themselves, or for their utility in obtaining other resources (Pennonen, 2011).

According to this theory, when there is a balance between the demands and resources, employees feel like they are able to manage their responsibilities, resulting in them experiencing a sense of motivation (Bettini et al., 2020). Recovery will, however, be needed when there is an imbalance, and an individual's resources are lost, threatened or not regained after resource investment (Pennonen, 2011). In the workplace, an employee's resources, like vigour, are expended or threatened when a work situation is unfavourable. Such conditions produce stress, which creates a need for recovery.

Employees have to attempt to restore these threatened resources or gain new resources to recover from their stress (Pennonen, 2011). This recovery can happen, for example, when engaging in activities that positively contribute to an individual's self-efficacy, which will in turn refill that energy resource. The idea central to the COR theory is therefore that recovery occurs

when individuals regain resources by restoring threatened or lost resources, or by drawing on new ones (Siltaloppi et al., 2009).

2.2.3 Summary of the Resource Models

The E-R model and the COR theory complement each other in that they both explain the process through which recovery occurs. The former claims that in order for recovery to happen, it is essential to refrain from work demands or to avoid activities that draw upon the same resources required by work demands (Siltaloppi et al., 2009). According to the COR theory, individuals will allow recovery to take place if they gain new resources, like energy and self-efficacy, or by restoring threatened or lost resources (Siltaloppi et al., 2009).

When considering how both theories view the process of recovery, it is possible to think of several situations during the normal working day where individuals find themselves engaging in activities that would draw on how both theories view recovery. An example of this is when employees take smoking breaks. A smoking break would allow an individual to take a break from his/her work activities that require the utilisation of resources, while at the same time regaining a threatened or lost resource, like energy.

It should however be noted that, although the COR theory holds relevance to this study, it is likely that the E-R model will provide the most useful framework for understanding the effects and the processes that are expected to be present in this study. This is because the two most relevant recovery experiences processes for this study are rooted in the E-R model rather than the COR theory. The latter, however, still provides valuable and relevant insights into resource management. The below section will elaborate on this line of reasoning.

2.3 Defining Recovery

To fully understand the conceptual model that will ultimately be proposed at the end of this chapter, it is important to first understand the concept of recovery. Although recovery is a

concept that has been utilised and defined in many ways, it still has a core meaning that is common among its various definitions. The common thread between all of the definitions of recovery is that it is a process that happens when the stressors imposed on the individual are no longer present (Pennonen, 2011).

Recovery is considered as the antipode of the psycho-physiological activation that is present under stressful conditions (Sonnentag & Natter, 2004). During recovery, strain is reduced as the individual's functioning returns back to its pre-stressor level (Pennonen, 2011).

Recovery can be viewed from a physiological perspective, as well as from a psychological perspective. From the physiological perspective, it is seen as a decrease in physiological strain indicators, like an elevated heart rate. Whereas from a psychological perspective, recovery can be seen as when an individual feels ready to continue with his/her demands (Pennonen, 2011). It should be noted that recovery is also often examined simultaneously from both perspectives. For the purposes of this study however, recovery will be approached from the psychological standpoint.

Recovery can further be divided into three different facets of recovery, namely recovery settings, recovery as a process and recovery as an outcome (Sonnentag & Geurts, 2009).

2.3.1 Recovery Settings

Certain situational and temporal settings allow for recovery to occur. Examples of these settings are evenings free from work, weekends and within-day work breaks (Pennonen, 2011). The topic of breaks outside of official worktime will be touched on, but since the focus of this study is on the recovery experiences that take place while individuals are at work, such studies will not be greatly elaborated on in this chapter. It must be noted however that, in order to fill in the gaps of literature on within-day work breaks, some deductions will be made based on findings of recovery settings outside of work.

Within-day work breaks are often referred to as micro-breaks, and involve various activities like coffee breaks, smoking breaks and WILB. There have been studies that examined the effects of breaks with a focus on frequency, duration and timing (Akbulut et al., 2017). These studies found that work breaks can aid against the effects of fatigue and ultimately increase productivity. One of the studies that focused on the relationship between within-day work breaks and recovery is a study by Trougakos et al. (2008). They found that enjoyable activities during work breaks provide greater recovery than activities that require personal effort, and that could be labelled as chores.

Studies exploring the topic of leisure time breaks tend to agree on the idea that if these breaks are used effectively, they will lead to recovery (Pennonen, 2011). In summary, these studies have found that leisure time breaks during the week and weekends promote recovery when they are spent doing stimulating or relaxing activities, while avoiding work-related activities (Pennonen, 2011). An interesting finding from studies on the impact of vacations, is that the recovery gained from vacations faded very quickly after employees returned to work. It was found that recovery faded within two to four weeks after returning to work (Pennonen, 2011). This emphasises the importance of leisure time- and within-day recovery experiences.

2.3.2 The Recovery Process

When recovery is referred to as a process, the emphasis is on the mechanisms underlying the phenomenon of recovery (Sonnentag & Geurts, 2009). These mechanisms may refer to the activities that employees engage in to achieve recovery, as well as the psychological processes related to these activities (Sonnentag & Geurts, 2009). Individuals may differ with regards to the activities that they experience as allowing recovery to take place. Taking these psychological processes into account may be extremely important, since, as Sonnentag and Fritz (2007) have argued, recovery might not happen due to specific activities, but rather due to the processes behind it, like relaxation. These processes have been labelled as "*recovery experiences*"

(Sonnentag & Fritz, 2007). Recovery experiences consist of psychological detachment from work, relaxation, mastery and control (Siltaloppi et al., 2009). The first two experiences are rooted in the E-R Model, while the last two are rooted in the COR theory.

2.3.3 Recovery as an Outcome

When considering the abovementioned information, it is clear that certain settings and processes are more, or less, optimal for allowing recovery to take place. The way that recovery takes place will therefore influence the level of recovery that is achieved. This resultant level of recovery is what is referred to as recovery as an outcome. Examples of outcomes of recovery are specific physiological and neuroendocrine indicators, like heart rate and cortisol levels (Siltaloppi et al., 2009). A person's affective state, as well as performance scores can also be considered as outcomes of recovery (Siltaloppi et al., 2009).

2.4 Recovery Experiences

2.4.1 Psychological Detachment

Psychological detachment describes the sense of being away from work. Psychological detachment can also be described as the feeling of "switching off" from work (Siltaloppi et al., 2009; Bosch et al., 2018). It is important to note that this isn't limited to physically being away from work, but that it includes when individuals stop thinking about work-related issues (Pennonen, 2011). Psychological detachment allows individuals to recover from work-related issues that cause effort, load reactions and negative affect, by temporarily relieving their psychobiological systems from the strain caused by work demands (Pennonen, 2011). This claim is backed by evidence from studies that showed that psychological detachment was negatively correlated to emotional exhaustion, health complaints, and depressive symptoms (Sonnentag & Fritz, 2008). Several diary studies have shown that the experience of psychological detachment from work led to individuals reporting being in a better mood and feeling less fatigued (Pennonen,

2011). It has also been shown that psychological detachment during the weekend was positively correlated to feelings of being well-rested and refreshed (Pennonen, 2011).

2.4.2 Relaxation

Relaxation refers to the processes characterised by low sympathetic activation and an increased positive affect (Bosch et al., 2018; Pennonen, 2011; Siltaloppi et al., 2009). It allows recovery to happen both on the physical level, through, for example, reducing physical activity, and the mental level, by, for example, doing relaxation exercises like meditation (Pennonen, 2011). It can be a result of either deliberately chosen strategies, like meditation, or it may occur less deliberately, for example, while engaging in activities like listening to music (Siltaloppi et al., 2009).

Relaxation is expected to help recovery since it reduces the demands on a person's physiobiological system (e.g., cardiovascular and neuroendocrine systems) as well as the internal resources, like self-regulation, that are called upon during work (de Bloom et al., 2015). Several studies lend support to the claim that these experiences lead to recovery. Sonnentag and Fritz (2007) found that relaxation was negatively related to emotional exhaustion, health problems, and need for recovery. It has also been shown that relaxation over the weekend is positively related to a state of being recovered at the start of the work-week (Siltaloppi et al., 2009).

2.4.3 Mastery

Mastery refers to activities that the Individual engages in that offer challenges or opportunities to learn new skills (Bosch et al., 2018; Siltaloppi et al., 2009). Examples of such activities include learning new sports or taking language classes. Although mastery experiences will likely put additional demands on the individual, it is expected to enhance recovery via the process of building up new internal resources like skills, self-efficacy and competencies. It is however important that these mastery experiences should not be overtaxing to the individual in

the process of challenging him/her (Siltaloppi et al., 2009). The available empirical evidence suggests that mastery experiences, when not over taxing to the individual, lead to recovery (Siltaloppi et al., 2009).

Trougakos et al. (2004) have found that mastery experiences could be valuable during lunch breaks. However, it has been argued that lunch breaks likely do not offer enough time for engaging in the activities that will lead to mastery experiences, especially when considering that other activities, like eating, will enjoy priority during lunch breaks (Bosch et al., 2018; Sonnentag et al., 2004). Based on this line of reasoning, they have decided to exclude mastery experiences in their study on recovery experiences. The current study will follow that same line of reasoning by also not including mastery experiences. The decision to omit mastery experiences from this study is emphasised by WILB breaks typically being of even shorter duration than lunch breaks. The chances of mastery experiences happening during these short breaks are therefore even less likely than during standard lunch breaks.

2.4.4 Control (WILB acceptance)

Control refers to a person's ability to choose an action to engage in from two or more options (Siltaloppi et al., 2009). In the context of leisure time, control refers to the ability to decide which activity to pursue, as well as when and how to pursue the chosen activity (Siltaloppi et al., 2009). Although this study will not investigate recovery experiences during leisure time, the above definition is still somewhat applicable. In the context of WILB, control can be considered as the ability to decide whether to engage in WILB without there being a risk of negative repercussions, as well as when and how to engage in WILB. Control here will therefore refer to whether the employee feels that he/she is in an environment where WILB is allowed or not.

It is however important to take into consideration that even employees that experience very little control in this context, can still engage in WILB, due to advancements in technology,

like smartphones. Employees whose computer screens are not always visible to their managers will also be able to engage in WILB even though they have low levels of control.

Considering the abovementioned reasoning, it would be a more accurate representation of reality to change the term used to describe the abovementioned phenomenon from control to WILB acceptance, especially since the variable in question will not be a reflection of whether the individual can engage in WILB, but rather whether the individual feels that a level of WILB is accepted in his/her work environment.

2.5 Workplace Internet Leisure Browsing

In an ideal world, employees would be able to consistently remain focused for several hours without taking any breaks. This is however not the reality. Employees need breaks during working hours to allow for the recovery of their personal resources. Some researchers place recovery outside of working hours. Recovery in this sense is expected to happen during the evenings after work, weekends and during vacations. This view places recovery in the private sphere. While it is true that recovery should happen during those designated periods, the positive effects of these recovery periods have however been shown to fade quickly (Ivarsson & Larsson, 2012).

Although scheduled work breaks exist exactly for the abovementioned purpose, employees might need to take additional “micro-breaks”, like informally chatting with colleagues or smoking a cigarette. Another example of a micro-break is when employees engage in WILB. WILB is the act of using the company internet for personal uses, like watching YouTube videos, using social media sites like Facebook or reading an online article (Coker, 2013).

According to the International Data Corporation, between 30% and 40% of employees use their company’s internet for WILB (Oosthuizen et al., 2018). Estimates about the total time that employees spend on WILB range from 9.4% to 13.3% of their worktime (Jandaghi et al., 2015;

Lim & Chen, 2012). This means that, on average, with a 9-hour workday, employees spend about 61min on WILB activities. The International Data Corporation also estimates that 30% of companies have terminated employees for engaging in WILB (Oosthuizen et al., 2018).

The personal use of company internet during work-time has also been referred to in several studies with terms like “cyberloafing” or “cyberslacking” (Askew et al., 2014; O’Neill et al., 2014). These terms are however negatively loaded and are often used alongside the assumption that personal internet use at work automatically leads to productivity losses. It is for this reason that they will not be employed in the present study, and why WILB is the preferred term.

2.6 Occupational Well-Being

The rise in positive psychology proposes a shift from the traditional focus on human weakness and malfunctioning towards human strength and optimal functioning (Bakker, 2004). Thanks to positive psychology, occupational well-being is now no longer understood as merely the absence of strain, like burnout, but also as a positive state, like work engagement (Hakanen & Schaufeli, 2012). Consequently, to investigate the level of occupational well-being in office workers, this study has therefore focused on measuring workers’ levels of burnout and engagement.

2.6.1 Burnout

The use of the term burnout to describe the relationship that people have with their work began to appear in the 1970s (Maslach et al., 2001). It highlighted the complexities of people’s relationship with their work. Burnout itself is also a complex phenomenon, which has consequently led to there being no standard definition of it. There however seems to be a consensus regarding the three core dimensions of burnout, namely an overwhelming exhaustion, feelings of cynicism and detachment from the job, and a sense of ineffectiveness and lack of accomplishment (Maslach et al., 2001).

Exhaustion is the most obvious manifestation of burnout. It is also the central quality of burnout, and what people most often refer to when they describe themselves or others as experiencing burnout (Maslach et al., 2001). Exhaustion can be defined as feelings of a reduction in an individual's emotional resources (Rothmann, 2008). Exhaustion results in individuals taking action to distance themselves cognitively and emotionally from their work in an attempt to cope with their work overload (Maslach et al., 2001). People use cognitive distancing through developing a cynical attitude when they are exhausted. This act of distancing refers to the cynicism dimension of burnout. It is defined as a negative, callous or excessively detached response to various aspects of an employee's job (Maslach et al., 2001).

The act of distancing oneself is such an immediate reaction to exhaustion, that burnout research consistently finds a strong relationship between exhaustion and cynicism (Maslach et al., 2001). The relationship of these two dimensions with the inefficacy dimension of burnout is however more complex. Reduced professional efficacy represents the self-evaluation dimension of burnout (Maslach et al., 2001). It refers to feelings of unproductiveness, incompetence, insufficiency and a lack of achievement (Rothmann, 2008). In some instances, inefficacy seems to be a function of either exhaustion, cynicism, or a combination of the two. In a work situation with overwhelming demands, individuals might experience exhaustion or cynicism, which is likely to have a negative influence on their effectiveness. In other contexts, inefficacy seems to develop in parallel, rather than sequentially, with exhaustion and cynicism (Maslach et al., 2001). Here, a lack of efficacy appears to arise from a lack of the relevant resources, while exhaustion and cynicism result from the presence of work overload or social conflict (Maslach et al., 2001).

The abovementioned conceptualisation of burnout has however received a fair amount of criticism in recent years. One of the strongest arguments against this understanding of burnout is that it actually describes a mixture of an individual state, a coping strategy and an effect (Kristensen et al., 2005). Cynicism, for example, is described by Maslach et al. (2002) as a

response to when people are exhausted. This means that it should rather be viewed as a coping strategy to burnout. Kristensen et al. (2002) argues that the same logic should apply to the feelings of reduced professional efficacy “dimension” of burnout, and states that it should rather be considered one of the consequences of long-term stress. This argument is corroborated, although not explicitly stated, by the manual of the Maslach Burnout Inventory (MBI), which states that the scores for each subscale are considered separately and are not combined into a single, total score (Kristensen et al., 2005).

Perhaps a more useful understanding of burnout is that it is a state a of emotional, mental and physical exhaustion that is a consequence of long term involvement in emotionally demanding situations (Kristensen et al., 2005). This understanding was proposed by Wilmar Schaufeli, who is one of the leading researchers in the field. This conceptualisation is echoed by the Copenhagen Burnout Inventory, which states that the core of burnout is fatigue and exhaustion (Kristensen et al., 2005). It is however important to emphasise that burnout is more than merely fatigue and exhaustion. According to Kristensen et al. (2005), the attribution of fatigue and exhaustion to different domains of a person’s life is key in understanding burnout.

According to Kristensen et al. (2005), there are three main domains to consider, namely personal burnout, work-related burnout and client-related burnout. Personal burnout refers to the “degree of physical and psychological fatigue and exhaustion experienced by the person” (Kristensen et al., 2005, p. 197). Work-related burnout is defined as “the degree of physical and psychological fatigue and exhaustion that is perceived by the person as related to his/her work’’ (Kristensen et al., 2005, p. 197). Lastly, client-related burnout is defined as “the degree of physical and psychological fatigue and exhaustion that is perceived by the person as related to his/her work with clients” (Kristensen et al., 2005, p. 197).

2.6.2 Engagement

Work engagement is becoming an increasingly important concept for employers as the importance of having not only healthy, but also motivated and engaged employees are being realised. Two schools of thought exist with regards to the conceptualisation of engagement (Nell, 2015). One defines engagement, alongside its three subdimensions, namely vigour, dedication and absorption, as the exact opposite of burnout. Consequently, work engagement is seen as the one end of the well-being and work-related health continuum. It is therefore considered as the positive antithesis of burnout (Nell, 2015). Although the other school of thought considers engagement to still be inversely related to burnout, they conceptualise it as being a distinct concept in terms of positive well-being (Nell, 2015).

Several definitions of engagement exist, but perhaps the most popular view is that engagement is defined as “an active, positive work-related state, that is characterised by vigour, dedication, and absorption” (Nell, 2015, p. 18).

The three sub-dimensions of engagement, namely vigour, dedication and absorption can be defined as follows:

a) **Vigour** is characterised by high levels of mental resilience, energy and a willingness to persists in one’s work (Demerouti et al., 2001).
b) **Dedication** refers to a sense of experiencing enthusiasm, significance, pride at work and being profoundly involved in one’s work (Pennonen, 2011).
c) **Absorption** is characterised by being engrossed in and devoted to one’s work and goes along with feelings of happiness and fulfilment (Demerouti et al., 2001).

Although engaged employees can also experience fatigue, they will persist in the face of difficulty and subsequently experience satisfaction (Demerouti et al., 2001). These employees are active agents who often engage in proactive job-crafting and changing the work environment to

better suit themselves (Nell, 2015). Engaged employees also tend to match the values of the organisations where they work (Schaufeli, 2012). These descriptions of engaged employees support Pennonen's (2011) description of engagement as a stable state, rather than a momentary short-term state of being. Pennonen (2011) further describes engagement as the optimal functioning at work, signalling sufficient recovery.

2.6.3 Summary

This section discussed and defined the relevant constructs of the occupational well-being model. It also explained which variables represent the constructs in the measurement phase. The relationship between the constructs, and consequently the accompanying hypotheses will now be explained.

2.7 The Relationships Between the Constructs

Below follows a discussion of the relationships between the various constructs. The two occupational well-being indicators, namely, work engagement and burnout form the focal outcomes of the model, whereas workplace internet leisure browsing is the independent variable. Two recovery experiences sub dimensions, psychological detachment and relaxation, act as mediating variables, while the third recovery experiences sub dimension, WILB acceptance, acts as a moderating variable.

2.7.1 The Relationship Between Workplace Internet Leisure Browsing and Recovery Experiences

To better understand the relationship between WILB and recovery experiences, the section below will draw on research investigating the relationship between the two constructs, as well as research investigating the relationship between work breaks and recovery. This is possible because WILB forms part of a broader category of activities that can be considered as work breaks.

According to the limited resource model of behaviour regulation, people must take breaks in order to restore the resources required to deal with behaviour regulation (Trougakos et al., 2008). Researchers have found that the nature of the break is important for resource recovery to take place. In order for a break to replenish depleted resources, the break activity engaged in during the break should not require other forms of regulation (Trougakos et al., 2008). Taking a break from one work activity in favour of another will therefore likely not allow recovery to take place, since all acts of self-regulation draw upon the same resource. This notion is supported by research stating that break activities that require the inhibition of preferred behaviour will further deplete resources, while break activities that involve the engagement in preferred behaviour should allow for resource recovery to take place (Trougakos et al., 2008). WILB should falls within the latter category, which can be referred to as respite activities.

The abovementioned findings are also in line with the results of Kim et al., (2018), who found that employees can increase their affective resources when they are able to voluntarily engage in respite activities during micro-breaks. They also specifically demonstrated that micro-break activities that were personally entertaining for the employee boosted positive affect (Kim et al., 2018). Kim et al., (2018) demonstrated that micro-breaks lead to a temporary halt in resource expenditure, and that it consequently leads to the replenishment of important resources.

Although still limited, research focusing on the relationship between entertainment media use during and after work, recovery experiences and well-being is gaining popularity (Janicke et al., 2017). Researchers investigating the effects of entertainment media focus on activities ranging from watching cat videos on YouTube to playing computer games at work. The consensus in their findings is that these breaks have a positive relationship with the two recovery experiences variables in question. Janicke et al. (2017) found that the positive affect resulting from watching funny videos led to psychological detachment and relaxation. Reinecke (2009) demonstrated a positive correlation between media enjoyment and recovery experiences. Other studies have also

found positive relationships between the hedonic experiences from entertainment and relaxation (Rieger et al., 2014; Rieger et al., 2017).

Research has not only found that media-breaks, like WILB, are beneficial for recovery, but also that they might even be more effective than non-media breaks. An example of this is the study done by Rieger et al. (2017) that found that media exposure led to significantly higher levels of psychological detachment than non-media breaks. Based on these findings, the researcher hypothesised the following:

Hypothesis 1: WILB has a significant positive effect on Psychological Detachment

Hypothesis 2: WILB has a significant positive effect on Relaxation

2.7.2 The Relationship Between WILB, WILB Acceptance and Recovery Experiences

The ego depletion theory (EDT) suggests that regulatory behavior taps into a specific, limited energy store. Engaging in regulatory behaviors, like focusing attention, managing impressions and suppressing emotion, will therefore result in those energy resources being bepelted, leading to increased perceived levels of fatigue (Trougakos et al., 2014). EDT also suggests that higher levels of regulatory resources that are being depleted during opportunities to recover, like WILB, will lead to higher levels of fatigue. Continuing along this line of reasoning, it is likely that employees who engage in WILB in work environments with low levels of WILB acceptance, will tap into their regulatory resources by constantly being on the lookout to make sure that no one sees what they are doing. This depletion of their regulatory resources, depending on the severity of the resource depletion, could potentially lead to increased levels of fatigue. It is however more likely lead to employees not being able to achieve the same level of recovery as they would have if they did not have to engage in the regulatory behaviors. This hypothesis is supported by Trougakos et al. (2014), who found that regulatory resource levels and autonomy play a crucial role for energy levels and recovery.

It is also possible that the level of WILB acceptance will impact what type of WILB behavior employees engage in. A lower level of WILB acceptance might cause employees to choose certain WILB behaviors, like checking and writing personal emails, over other WILB behaviors, like watching online videos or being on social media. This could ultimately result in employees engaging in WILB behaviors that are less optimal for their recovery. This is supported by research that found that person-break fit affects the psychological impact of breaks. More specifically, the research found that individuals who perceived high person-break fit reported lower negative post-break affect than those with low person-break fit (Venz et al., 2019). Trougakos et al. (2014) also found that self-chosen breaks, which are a result of having control over which type of breaks you can make use of, will support higher levels of recovery. Continuing along this line of reasoning, Reinecke (2009) found that media-induced satisfaction of recovery needs is related to enjoyment. Being able to engage in WILB activities that individuals enjoy more than other activities should therefore result in higher levels of recovery.

When considering the abovementioned arguments, it is reasonable to expect that WILB acceptance should have a moderating impact on the relationship between WILB and the two recovery experiences variables. The following hypotheses are consequently derived from the preceding argument:

Hypothesis 3: WILB acceptance moderates the relationship between WILB and psychological detachment

Hypothesis 4: WILB acceptance moderates the relationship between WILB and relaxation

2.7.3 The Relationship Between Recovery Experiences and Occupational Well-Being

Research has suggested that individuals with well-functioning recovery experiences will experience less strain due to job stressors than those with poorly functioning recovery experiences (Siltaloppi et al., 2009). At as broader level, engaging in enjoyable and relaxing

activities has been shown to correlate positively with reports of greater well-being (Trougakos et al., 2008). Researchers have also found that recovery experiences helped individuals replenish resources in stressful job situations, leading to maintained well-being (Siltaloppi et al., 2009). A study by Siltaloppi et al. (2009) investigated the impact of recovery experiences on occupational well-being using work engagement and job exhaustion, which are core dimensions of burnout, as occupational well-being indicators. They found that recovery experiences were related to each well-being indicator that was examined (Siltaloppi et al., 2009). More specifically, they found that if psychological detachment and relaxation does not take place, increased levels of job exhaustion, and lower levels of work engagement follow (Siltaloppi et al., 2009). Their research showed that recovery experiences explained 7% of the variance in work engagement.

Other studies also support the findings of Siltaloppi et al. (2009). Positive correlations between recovery and work engagement have been shown (Pennonen, 2011). Dalal (2005) describes the recovery experienced from work breaks as crucial in increasing the levels of work engagement among employees. Empirical evidence has also shown that psychological detachment has a negative relationship with poor well-being indicators like emotional exhaustion, health complaints, depressive symptoms and sleep problems (Pennonen, 2011).

Upon examination of the abovementioned literature, it is evident that the two recovery experiences variables, psychological detachment and relaxation, should display a negative relationship with burnout, and a positive relationship with engagement. The following hypotheses are consequently derived from the preceding argument:

Hypothesis 5: Psychological detachment has a significant negative effect on burnout

Hypothesis 6: Psychological detachment has a significant positive effect on engagement

Hypothesis 7: Relaxation has a significant negative effect on burnout

Hypothesis 8: Relaxation has a significant positive effect on engagement

Given the previously discussed theoretical link between WILB and the two recovery experiences variables, as well as the abovementioned link between the latter and the two occupational well-being variables, the recovery experiences variables can be understood as mediators between WILB and the occupational well-being variables. In other words, WILB is expected to influence an individual's levels of the two occupational well-being variables, not by impacting them directly, but rather through its effect on the person's recovery experiences.

2.8 Chapter Summary

The chapter began with a brief overview of previous recovery theories. Thereafter the relevant constructs were described and defined. Finally, the relationships between the relevant constructs were explained, which was followed by the hypotheses of the present study being stated. The proposed hypotheses culminate into the conceptual model (figure 2.1) found below. The next chapter will present the methodology that was used to conduct the research and to investigate the stated hypotheses.

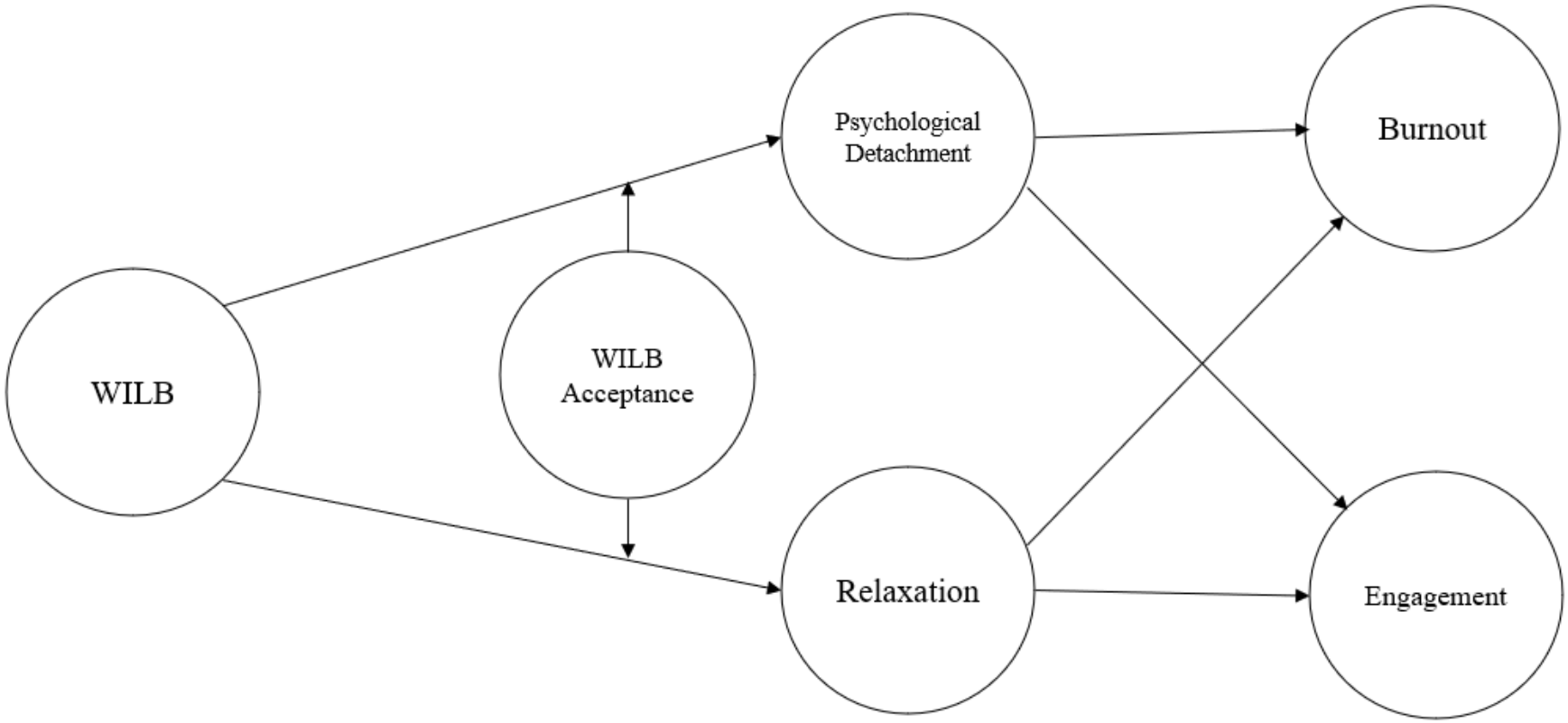

Figure 2.1.

Proposed Occupational Well-Being Conceptual Model

3. Research Methodology

3.1 Introduction

This chapter describes the methodology that was employed during the research process to obtain answers to the following research initiating question: Why is there variance in the occupational well-being amongst South African office workers?

The validity of a model depends on the extent to which it fits the available empirical data (Babbie & Mouton, 2001). According to Babbie & Mouton (2001) the research methodology should purposefully serve the search for truthful knowledge, i.e. the epistemic ideal. The methods used to conduct research directly influences the validity and credibility of the explanations derived from the proposed model (Theron, 2017). The process of testing the validity of a structural model encompasses several critical stages where the epistemic ideal is potentially threatened if appropriate steps are not taken to maximise the likelihood of valid findings.

The scientific method's control mechanisms of objectivity and rationality allow it to serve the epistemic ideal when used as the method of enquiry (Babbie & Mouton, 2001). Objectivity refers to the conscious, explicit focus on the reduction of error (Babbie & Mouton, 2001). Rationality in this context refers to the fact that experienced peers evaluate the methodological stringency of the process that was used to arrive at the research findings in order to assess the validity of those findings. It is important that an accurate description and thorough motivation of the methodological choices made at each critical stage in the process are provided to facilitate this process.

Before discussing the methodology that was used in this research study, the objectives of the study will be revisited. The primary objective of the study was to develop and empirically test a structural model (based on current literature) that explains the antecedents of the variance in occupational well-being among South African office workers.

After a review of the literature, the study now more specifically aims to:

- test the structural occupational well-being model and the validity of the proposed relationships between the constructs
- determine the levels of workplace internet leisure browsing, workplace internet leisure browsing acceptance, psychological detachment, relaxation, burnout and work engagement of a sample of South African office workers
- highlight the results and managerial implications of the research findings, and recommend practical interventions to South African organisations with regards to their approach to employee workplace internet leisure browsing.

This chapter will focus on the research hypotheses, research design, sample and participants, operationalisation of the measurement instruments and statistical analysis techniques that were employed in the study.

3.2 Research Hypotheses

3.2.1 Substantive Research Hypothesis

The objective of this study was to develop and empirically test a structural model (based on current literature) that explains the antecedents of variance in occupational well-being among South African office workers. The relevant variables were discussed in the literature study, which was then also reflected in the conceptual model presented in figure 2.1. The overarching substantive research hypothesis of this study is that the structural model depicted in figure 3.1 provides a valid account of the psychological processes that determine variance in occupational well-being. The overarching substantive research hypothesis can be dissected into the following six more detailed, path-specific substantive research hypotheses.

3.2.2 Path-Specific Research Hypotheses

Hypothesis 1: Workplace internet leisure browsing has a significant positive effect on psychological detachment.

Hypothesis 2: Workplace internet leisure browsing has a significant positive effect on relaxation.

Hypothesis 3: Workplace internet leisure browsing acceptance moderates the relationship between workplace internet leisure browsing and psychological detachment.

Hypothesis 4: Workplace internet leisure browsing acceptance moderates the relationship between workplace internet leisure browsing and relaxation.

Hypothesis 5: Psychological detachment has a significant negative effect on burnout.

Hypothesis 6: Psychological detachment has a significant positive effect on engagement.

Hypothesis 7: Relaxation has a significant negative effect on burnout.

Hypothesis 8: Relaxation has a significant positive effect on engagement.

3.3 Statistical Hypotheses

The model depicted in figure 3.1 proposes paths between a single exogenous latent variable (independent variable), and numerous endogenous latent variables (dependent variables). The statistical hypotheses presented in this section are products of the logic underlying the research design, the structural model and the nature of the statistical techniques associated with an *ex post facto* correlational design (Theron, 2017). The statistical analysis technique that is appropriate for the analysis of data that result from an *ex post facto* correlational design, is Structural Equation Modelling (SEM) (Theron, 2017).

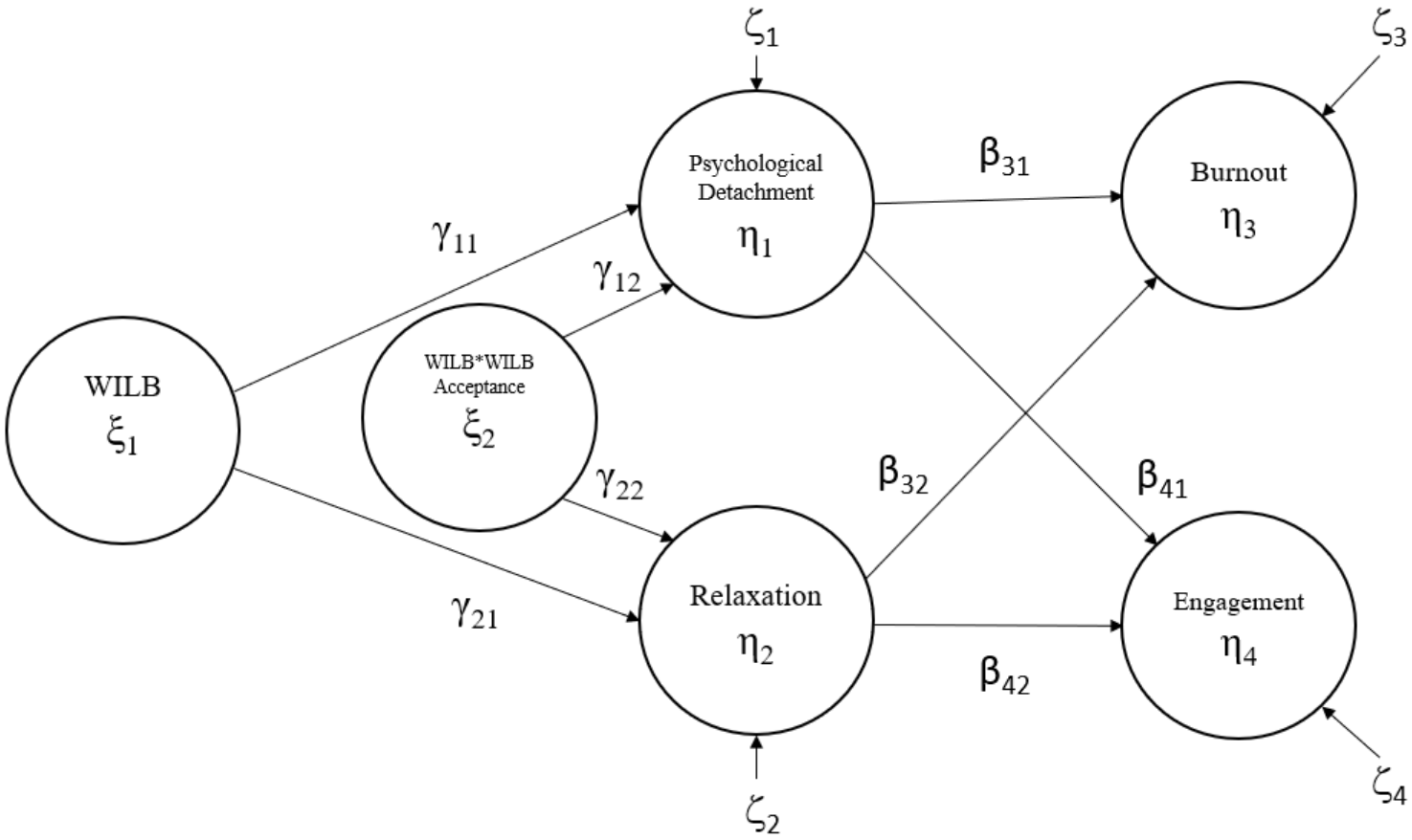

Figure 3.1

Reduced Occupational Well-Being Structural Model

To evaluate to what extent the hypothesised structural model is a reproduction of the psychological processes that determine employees' occupational well-being, the model had to be tested against exact fit and close fit null hypotheses. An exact fit would mean that the structural model provides a precise reproduction of the psychological processes that determine employees' occupational well-being. The exact fit null hypothesis can be stated as follows:

$$H_0: RMSEA = 0$$

$$H_a: RMSEA > 0$$

It is however highly unlikely that a structural model will achieve an exact fit, since it is merely an attempted reproduction of reality (Theron, 2017). Researchers therefore strive towards a more realistic goal, namely, to achieve a close fit. A close fit acknowledges the error of approximation. In order to claim that a model is a close reproduction of reality, it must achieve a root mean square error of approximation of less than or equal to a p-value of .05. The close fit null hypothesis can be stated as follows:

$$H_0: RMSEA \leq .05$$

$$H_a: RMSEA > .05$$

The overarching substantive research hypothesis was dissected into six more detailed, path-specific substantive research hypotheses. The path-specific research hypotheses are depicted below in terms of SEM notation:

***Hypothesis 1**:* Workplace internet leisure browsing has a significant positive effect on psychological detachment

$$H_{01}: \Upsilon_{11} = 0$$

$$H_{a1}: \Upsilon_{11} > 0$$

***Hypothesis 2**:* Workplace internet leisure browsing has a significant positive effect on relaxation

$$H_{02}: \Upsilon_{21} = 0$$

$$H_{a2}: \Upsilon_{21} > 0$$

Hypothesis 3: WILB acceptance moderates the relationship between WILB and psychological detachment

$$H_{03}: \gamma_{12} = 0$$

$$H_{a3}: \gamma_{12} < 0$$

Hypothesis 4: WILB acceptance moderates the relationship between WILB and relaxation

$$H_{04}: \gamma_{22} = 0$$

$$H_{a4}: \gamma_{22} < 0$$

***Hypothesis 5**:* Psychological detachment has a significant negative effect on burnout

$$H_{05}: \beta_{31} = 0$$

$$H_{a5}: \beta_{31} < 0$$

***Hypothesis 6**:* Psychological detachment has a significant positive effect on engagement

$$H_{06}: \beta_{41} = 0$$

$$H_{a6}: \beta_{41} > 0$$

***Hypothesis 7**:* Relaxation has a significant negative effect on burnout

$$H_{07}: \beta_{32} = 0$$

$$H_{a7}: \beta_{32} < 0$$

***Hypothesis 8**:* Relaxation has a significant positive effect on engagement

$$H_{08}: \beta_{42} = 0$$

$$H_{a8}: \beta_{42} > 0$$

3.4 Research Design

The planning stage of the research process plays a major role in determining the success of the execution of the research. The research design is a plan or a blueprint that determines how the research will be conducted (Babbie & Mouton, 2001). A research design is dictated by the type of research initiating question, research hypotheses and the empirical evidence needed to test these hypotheses. The research design serves the function of attempting to ensure that the empirical evidence derived from the research can be interpreted unambiguously and allow the hypotheses to be tested.

The research design that was implemented in this study is an *ex post facto* correlational design. According to Theron (2017) this type of design is utilised when the relationships between variables are observed without any form of manipulation and/or control. This may be due to the researcher not being able to control or manipulate the variables, or because the manifestation of

the phenomena has already occurred. In short, participants are not randomly assigned, and variables are not manipulated.

The logic underlying this design entails that the researcher obtains measures on the observed variables and calculates the observed covariance matrix. Estimates for the freed structural and measurement model parameters are obtained in an iterative fashion with the objective of reproducing the observed covariance matrix as closely as possible (Theron, 2017).

If the fitted model fails to reproduce the observed covariance matrix accurately, it follows that the structural model does not provide an acceptable explanation for the observed covariance matrix. Subsequently, it then follows that the structural relationships hypothesised by the model do not provide an accurate portrayal of the psychological processes shaping the phenomenon of interest. The opposite is however not true. If the covariance matrix derived from the estimated structural and measurement model parameters closely agrees with the observed covariance matrix, it would not imply that the psychological dynamics hypothesised by the structural model necessarily produced the observed covariance matrix.

It is important to take into consideration the limitations associated with a chosen research design. The *ex post facto* correlational design has three shortcomings (Kerlinger & Lee, 2000). Firstly, the researcher is not able to manipulate the independent variables. Secondly, there is an inability to randomise and thirdly, there is a risk that the results might be interpreted incorrectly (Kerlinger & Lee, 2000). Despite these shortcomings, this design is still a valuable and prominent design in the field of industrial psychology, as well as in other social sciences. This is because most of the research variables in these fields are not suitable for manipulation. Despite these weaknesses, this design was still utilised, since the ex post facto correlational design can be used to control for extraneous variance as well as minimise error variance if the correct techniques are applied (Theron, 2017).

3.5 Sample and Participants

Sampling involves the selection of a sub-set, or segment, of a total population (Babbie & Mouton, 2001). Several important decisions must first be made before procuring a sample. The researcher must define the target population and the sampling population, decide on a sampling technique and determine the required sample size.

3.5.1 Defining the Target Population

According to Kerlinger & Lee (2000), the target population refers to the theoretical totality of the elements implied by the research initiating question. For the purposes of this study, the target population was South African office workers. Ideally, the whole target population would be included in the study. Achieving this ideal is however not feasible. Consequently, the researcher had to default to the alternative approach. This entailed investigating only a sample that is representative of the target population.

3.5.2 Defining the Sampling Population

The sampling population refers to the elements from which the sample is selected. This study's sampling population was South African office workers (Kerlinger & Lee, 2000). At the onset of this study, the term "office worker" referred to any employee that spends most of his/her time working in an office environment. Due to the outbreak of COVID-19 and the resultant lockdown regulations, the researcher was forced to relax the criterion of how much time is spent working in an office environment. This will however be expanded on in the "Limitations of The Study" section.

The decision to focus on office workers was made for practicality. Several other categories of workers exist that should not spend time engaging in WILB for a variety of reasons. Examples of such workers are manufacturing workers (for occupational health and safety reasons) and call

centre agents who are often not allowed to use their cell phones at work due to the Protection of Personal Information (PoPI) Act.

3.5.3 The Sampling Method

Sampling identification can be done via one of two techniques: probability sampling (i.e. cluster, stratified, random and systematic sampling) and non-probability sampling (i.e. purposive, quota, convenience/availability sampling) (Babbie & Mouton, 2001). The sampling technique that was employed to select sampling units is *non-probability convenience sampling.* With this sampling technique, subjects are selected based on their convenient accessibility and proximity to the researcher (Babbie & Mouton, 2001). This technique was utilised due to organisational time constraints, since there is limited time for data collection and research endeavours on the part of the organisations.

Burger (2011) states that three aspects need to be considered when determining a sample size if SEM is used as the analysis technique. Firstly, the *ratio* of the sample size to the number of parameters; secondly, the *statistical power* associated with the test of the close-fit hypothesis (RMSEA < .05) against an alternative mediocre-fit hypothesis (RMSEA > .05) and finally the *practical and logical* considerations, like cost and the availability of suitable respondents, must be estimated. Kelloway (1998) suggests that 200 observations for a research study would suffice when SEM is used as the method of statistical analysis.

Social Media was used to distribute the invitation to engage in the research study. The researcher also made use of his personal networks to invite additional people to participate in the study.

3.5.4 Sample Characteristics

A total of 101 office workers were included in the sample. Table 3.1 shows the demographic characteristics of the sample. As can be seen in the table below, there was a fairly

equal distribution of male (45%) and female participants (54%), with only one percent of the sample not identifying as either male or female.

The racial distribution of the sample is however not nearly as balanced, with 87% of the sample consisting of white individuals. Black and coloured individuals each made up 5% of the sample. Asians are the least represented group in the sample at 1%, while 2% of the sample consists of people who did not identify with any of the above-mentioned races.

The sample primarily consisted of people under the age of 29 (63%). 21% of the sample was between 30 and 39, 4% between 40 and 49, 6% between 50 and 59, and 6% of the sample were 60 and over.

Table 3.1

Demographic Characteristics of Sample

Description	Frequency	Percentage
Gender		
Male	45	44.5
Female	55	54.5
None of the Above	1	0.9
Total	101	100

Description	Frequency	Percentage
Race		
Black	5	4.9
White	88	87.1
Coloured	5	4.9
Asian	1	0.9
Other/Unspecified	2	1.9
Total	101	100
Age		
20-29	64	63.4
30-39	21	20.8
40-49	4	3.9
50-59	6	5.9
60 and over	6	5.9
Total	101	100

Participants were also asked to indicate how many hours they normally work during a typical week. Table 3.2 displays the weekly work hours of the sample. The work hours of the sample has a fairly normal distribution. On average, candidates have jobs where they work for a standard number of hours per week (43 hours). Although the normal weekly work hours for full-time employees is 45 hours, a general rule of thumb is that anything above 30 hours per week can be considered full-time. With this guideline in mind, roughly 93% of the sample can be considered as full-time workers.

Table 3.2

Weekly Work Hours

Description	Frequency	Percentage
Weekly Work Hours		
11-20	4	3.9
21-30	3	2.9
31-40	27	26.7
41-50	44	42.6
51-60	21	20.8
More than 60	2	1.9
Total	101	100

Table 3.3 displays how many hours per week participants typically spend working in an office environment. It is likely that the COVID-19 pandemic had a major impact on the weekly office hours of the sample. This is something that will elaborated on in the limitations section of this dissertation. Roughly 60% of the sample works in an office for at least 31 hours a week, while the remaining 40% works in an office environment for less than 30 hours.

Table 3.3

Weekly Office Hours

Description	Frequency	Percentage
Weekly Office Hours		
<10	21	20.8
11-20	9	8.9
21-30	11	10.9
31-40	33	32.7
More than 40	27	26.7
Total	101	100

3.7 Statistical Analysis

It is important firstly to analyse the data to determine whether the instruments' items functioned satisfactorily, as well as whether their respective subscales/items fitted onto the constructs that they were expected to measure, before the actual hypotheses are tested. The techniques that were be utilised to analyse the questionnaire data from the model depicted in figure 3.1, are item analysis and Partial Least Squares (PLS) modelling.

3.7.1 Missing Values

Owing to non-response and/or absenteeism (in the case of longitudinal designs), there is a high probability of encountering missing values in the survey data. If not dealt with before the analysis of the data, these missing values can influence the empirical results greatly. There are various methods (e.g., list-wise detection, pair-wise detection and multiple imputations) available to deal with the problem of missing values. The methods utilised to deal with this problem will

depend on the pattern of missing data, the number of missing values and the nature of the data (e.g. normalised or non-normalised) (Nell, 2015).

In the present study, missing data was not a factor that had to be dealt with during the analysis process. This is due to the configuration of the questionnaire that was employed. Participants could only submit their survey answers if they completed it fully by answering all of the questions. Although this resulted in many incomplete attempts, it also meant that when the researcher used the completed surveys, missing data was not a problem.

3.7.2 Item Analysis

The scales used in this study were developed to each measure a specific construct or dimension of a construct. The items that these scales consist of were developed to act as stimuli to elicit responses from participants and to reflect their standing on these specific latent variables. The item-responses should therefore reflect the behaviour underlying the construct and, in the process, make the behaviour “observable” in the data.

An item analysis was conducted to determine the internal consistency of the items contained in the various measuring instruments that have been utilised. The item analysis attempted to identify items that do not successfully reflect the intended latent variable. Such items are called “poor” items. Items can be considered poor for various reasons e.g., if they are insensitive, inconsistent or portray a poor interpretation of the construct (Theron, 2017).

The results from an item analysis could lead to items being transformed or deleted from the instruments if they do not comply with certain criteria. Literature, for example, suggest that the reliabilities (Chronbach’s alpha) of items should be .60 or higher (Tabachnick & Fidell, 2013). If the overall reliability of an instrument or subscale is significantly improved after poor items have been deleted, they should be excluded from subsequent analyses.

In this study, item analysis was performed as part of the PLS analysis. This allowed the researcher to evaluate the quality of the relevant items by looking at the following item statistics: Chronbach's alpha if the item is deleted, the inter-item correlations and the squared multiple correlations.

3.7.3 Confirmatory Factor Analysis

CFA enables researchers to formulate and test hypotheses regarding the underlying factor structure of a construct and tests whether the measurement model sufficiently operationalises the structural model (Nell, 2015). Operationalisation is considered successful if the measurement model shows close fit (RMSEA ≤ .05), the estimated factor loadings are all statistically significant ($p < .05$) and if the factor loadings are large and measurement error variances are statistically significant ($p < .05$) but small in the completely standardised solution (Theron, 2017).

The sample size of this study (101) however meant that it was not methodologically feasible to conduct confirmatory factor analyses on the separate instruments.

3.7.4 Structural Equation Modelling

Structural equation modelling (SEM) allows the researcher to analyse the relationships between the variables. This enables the researcher to empirically test his/her hypotheses. It also provides the researcher with a better picture of the relationships between the variables in question. Path analysis provides valuable information of the impact that the independent variable(s) has on the dependent variables.

Researchers have two approaches to SEM available to them. The first option is the conventional SEM, which is known as covariance-based SEM (CB-SEM) (Ravand & Purya, 2016). This approach uses structural equations to develop a theoretical covariance matrix. It employs the maximum likelihood (ML) estimation method, and estimates model parameters, allowing the minimisation of discrepancy between the model-implied and sample covariance

matrices. CB-SEM analyses requires normally distributed data and can only be used on large samples (Hair et al., 2011).

The second SEM method that is available is partial least squares SEM (PLS-SEM), also referred to as variance-based SEM. Here, the approach is to employ an ordinary least squares estimation with the aim of maximising the dependent variables' explained variance (Ravand & Purya, 2016). An advantage that PLS-SEM has over CB-SEM is that it imposes fewer constraints on the data and, something that is particularly relevant to this study, it can be used in situations where smaller samples-sizes are present and where multivariate normality is not met (Ravand & Purya, 2016). It is for this reason that PLS-SEM, rather than CB-SEM, was used in the current study.

PLS-SEM follows a two-step process when evaluating model fit, involving separate assessments of the structural model and the measurement models (Hair et al., 2011). The first step entails examining the outer model by assessing the various measures' reliability and validity according to certain criteria. This is based on the reasoning that without valid and reliable measures, there is little use for examining the structural relationships (Hair et al., 2011). In the second step, the focus shifts from the outer model (the measurement model) to the inner model (the structural model estimates). Here, the variance, effect sizes and predictive relevance of the reflective constructs are examined.

3.7.4.1 Outer Model Evaluation.

As mentioned above, the reliability and validity of the various measures are assessed when evaluating the outer model. To do this, the first criterion that is analysed is the constructs' internal consistency. Researchers can assess internal consistency by either looking at Cronbach's alpha scores or composite reliability scores. Cronbach's alpha represents the average correlations between indicators of a given construct (Ravand & Purya, 2016). In general, a Cronbach's alpha

index of 0.7 or higher is considered as evidence for internal consistency (Ravand & Purya, 2016). Another option for assessing internal consistency is to evaluate the composite reliability of a measure. This is often the preferred route since Cronbach's alpha is prone to underestimating the internal consistency reliability. Composite reliability is also more suitable for PLS-SEM because it does not assume that all indicators are equally reliable. According to Hair et al. (2014), composite reliability values of 0.6 and higher are regarded as satisfactory in exploratory research.

The next step in the outer model evaluation entails assessing the validity of the constructs. Validity assessments focus on convergent validity and discriminant validity (Hair et al., 2011). Convergent validity refers to the amount of variance that is shared between the indicators of a construct. The average variance extracted (AVE) is examined when assessing convergent validity. According to Hair et al. (2011), an AVE value of 0.50 and higher is considered as an indication of a sufficient degree of convergent validity. This means that more than half of an indicator's variance is explained by the latent variable. Discriminant validity shows how distinct a construct is from other constructs (Ravand & Purya, 2016). According to Ravand and Purya (2016), there are two methods that can be used for assessing discriminant validity. The first entails evaluating the cross loadings of the observed variables. The cross loadings of the construct in question should be higher than their loadings on any of the other constructs. The second method entails assessing the Fornell-Larcker criterion. This compares the AVE scores of each construct's squared correlations with those of other constructs (Ravand & Purya, 2016). We can claim that a construct has discriminant validity if its AVE score is larger than its highest correlation with any of the other constructs.

3.7.4.2 Inner Model Evaluation. After the outer model has been assessed by examining its reliability and validity, the focus is shifted towards the inner (structural) model. According to Hair et al. (2011), the primary evaluation criteria for the structural model are the R^2 measures and the level and significance of the path coefficients. R^2 values represent the extent to which variance in the endogenous latent variables is explained by the independent latent variables. Since the goal of prediction-oriented PLS-SEM is to explain the variance of the endogenous latent variable, the key constructs' level of R^2 should be high (Hair et al., 2011). However, what is classified as "high" depends on the research discipline. R^2 values range from 0 – 1. In some disciplines, like consumer behaviour, R^2 values of 0.20 are considered as being high, while in other disciplines, R^2 values would only be considered as high if they are around the 0.75 and above mark. According to Ravand and Purya (2016), no rule of thumb or cut-off values exist for R^2.

The individual path coefficients of the model should also be examined as part of the inner model evaluation. Path coefficient estimates represent both the direction and the strength of the relationships between constructs. Values range from -1 to 1, with values closer to 1 representing strong positive relationships, while values closer to -1 represent strong negative relationships (Hair et al., 2011). Paths that are nonsignificant or that are in the opposite direction of the hypothesized direction do not support the relevant hypothesis, while paths that are significant and in the correct direction are considered as support for the hypothesis (Hair et al., 2011).

3.8 Measurement Instruments

The latent variables comprising the structural model need to be measured by instruments that can provide the relevant empirical evidence against which hypotheses can be tested. To evaluate the fit of the occupational well-being model depicted in figure 3.1, the latent variables of the model must be operationalised. Measurement instruments operationalise these variables by making them measurable. The claims made with regards to the hypotheses hinge on the

assumption that the measurement instruments provide valid, reliable and unbiased measures of the latent variables that they are attempting to measure.

The measurement instruments that were utilised in this study include the Workplace Internet Leisure Browsing survey, The Workplace Internet Leisure Browsing Acceptance survey, the Recovery Experiences Questionnaire, the Copenhagen Burnout Inventory and the Utrecht Work Engagement Scale -17. These instruments' dependent and independent variables were operationalised to evaluate the fit of the model.

3.6.1 Workplace Internet Leisure Browsing

An online version of the WILB survey was utilised to gather data about participants' levels of WILB. WILB was calculated as a percentage of work time. It has been found that employees predominantly engage in 17 types of WILB activities (Coker, 2013). A list of these activities can be found below in table 3.2. The measurement of WILB in this study was based on how it was done by Coker (2011; 2013) in several of his studies. Participants were given the list of WILB activities and were asked to indicate which of the activities they typically perform during work hours. Participants were also asked to indicate, on average, how much time they spend on each activity it per day. To allow the calculation of the percentage of work time that participants spend on WILB activities, they were asked to indicate how many hours they usually work in a typical week.

Table 3.4
Workplace Internet Leisure Browsing Activities Experienced During Work Hours

Workplace Internet Leisure Activity
1. Reading online news websites
2. Checking online sports results
3. Checking lottery results
4. Reading non-work blogs (including Twitter/Facebook)
5. Writing personal blogs (including Twitter/Facebook)
6. Reading/Writing news group/discussion forum messages
7. Shopping (browsing with an intention to purchase products and services)
8. Browsing online shopping catalogues
9. Browsing or participating in online auction websites
10. Organizing personal financial affairs (e.g., online banking, stock trading)
11.Watching online media (e.g., YouTube)
12. Playing online games
13. Checking/writing personal emails from a non-work-related e-mail account
14. Searching for information about hobbies
15. Browsing websites for products or services of interest (no goal of specific purchase)
16. Participating in online gambling activities
17. Viewing adult websites

Note. Content adapted and compiled from: Coker, B. L. S. (2013). Workplace Internet Leisure Browsing. Human Performance, 26(2), 114–125. Https://doi.org/10.1080/08959285.2013.765878

The WILB scale measures WILB as a continuous variable. In other words, WILB scores can take on an infinite set of values. There are therefore no items statistics to evaluate and report on for the WILB scale.

3.6.2 Recovery Experiences (Psychological Detachment and Relaxation)

The two recovery experiences variables contained in the proposed model were measured by an adapted version of the Recovery Experiences Questionnaire (REQ). According to Sonnentag and Fritz (2008), this questionnaire offers and economic and reliable approach to assessing individuals' recuperation processes. The items used in the REQ make use of a 5-point scale, from 1 (I do not agree at all), to 5 (I fully agree).

Psychological detachment was measured by four items of the REQ (Bosch et al., 2018). A sample item is "During WILB, I don't think about work at all". Relaxation will also be measured with four items of the REQ. A sample item here is "During WILB, I use the time to relax" (Sonnentag & Fritz, 2007).

The REQ has been used in several studies comprising of various occupational groups as well as different countries. Its content validity has been examined by providing psychology students with the test items in a random order and asking them to classify each item into one of the four dimensions or to an additional "other" category. Only the items that were classified to the correct category by at least 75% of the students were retained (S Sonnentag & Fritz, 2007). Since this process resulted in *psychological detachment* only having 6 items remaining, the researchers decided to retain two original items that would have been excluded. These items were both correctly classified by 62.5% of the students. Sonnentag and Fritz (2008) found the internal consistency reliabilities (Cronbach's alphas) for both recovery experiences variables included in this study to be .85 or greater. The REQ has therefore been found to have excellent internal consistency.

3.6.2.1 Descriptive Statistics and Item Analysis. Item analyses were conducted on the two recovery experiences subscales, namely psychological detachment and relaxation. Tables 3.5 – 3.16 contain the item analysis and descriptive statistics of each subscale.

Table 3.5

The Means, Standard deviation and Reliability Statistics for the Psychological Detachment and Relaxation Scales

Recovery Experiences subscales	Number of items	M	SD	**α**
Psychological Detachment	4	11.38	3.83	.82
Relaxation	4	11.86	4.66	.94

As beforementioned, Cronbach's alpha values of 0.70 and higher are considered as indications of good internal consistency. The Cronbach's alpha values for the Recover Experiences Subscales are 0.82 and 0.94. We can therefore conclude that both psychological detachment and relaxation subscales have good internal consistency.

The item statistics of the psychological detachment and relaxation scales are displayed below in tables 3.6 and 3.7.

Table 3.6

Item Statistics for the Psychological Detachment Scale

Variable	Item total correlation	Alpha if deleted
Item 1	.76	.73
Item 2	.73	.75
Item 3	.70	.76
Item 4	.43	.87

Table 3.7

Item Statistics for the Relaxation Scale

Variable	Item total correlation	Alpha if deleted
Item 1	.86	.92
Item 2	.89	.91
Item 3	.80	.93
Item 4	.84	.93

The item total correlation for the first three items in the psychological detachment subscale all fall within a close range of each other (.70 – .76). The only item that falls outside of this close pairing is item 4, with a total correlation of 0.43. Deletion of this item will result in an increase of the Cronbach's alpha of the subscale. However, considering that this subscale only contains 4 items, as well as that the deletion of item 4 would only result in a 0.2 (from .85 – .87) increase in Cronbach's alpha, it was decided to retain all the items in the subscale.

All four of the items in the relaxation subscale fall within a close range to each other (0.8 – 0.89). Given that the scale obtained a very high Cronbach's alpha (.94) and that the deletion of

any of the four items would result in a decrease in alpha, all the items were retained for the PLS analysis.

3.6.3 WILB Acceptance

A WILB acceptance scale was created for this study. The stem of the scale is "In general in your workplace, …". This stem is followed with three items:

1. are employees allowed to browse the internet for personal reasons outside of lunch breaks?
2. do you feel that using the internet for personal reasons outside of lunch breaks is frowned upon by your superiors?
3. do you feel that using the internet for personal reasons outside of lunch breaks is frowned upon by your peers?

Participants were asked to rate each item on a five-point scale (1 = not at all; 5 = completely).

3.6.3.1 Descriptive Statistics and Item Analysis. An item analysis was conducted on WILB Acceptance. The descriptive statistics are reported in table 3.8, while the item statistics are reported in table 3.9.

Table 3.8

The Means, Standard Deviation and Reliability Statistics for the WILB Acceptance Scale

Scale	Number of items	M	SD	α
WILB Acceptance	3	9.65	3.11	.74

The results indicate that the Cronbach's alpha value for WILB Acceptance exceeds 0.70. We can therefore conclude that the scale has good internal consistency. The item statistics of the WILB acceptance scale is displayed below in table 3.9.

Table 3.9

Item Statistics for WILB Acceptance Scale

Variable	Item total correlation	Alpha if deleted
Item 1	.62	.73
Item 2	.61	.75
Item 3	.50	.87

The item total correlation for the first two items in the WILB acceptance scale both fall within a close range of each other (.61 – .62). Item 3 however, falls outside of this close pairing, with a total correlation of 0.43. Deletion of this item will result in an increase of the Cronbach's alpha of the subscale. However, since this subscale only contains 3 items, as well as that the scale already obtained a satisfactory Cronbach's alpha (.74), it was decided to retain all of the items in the subscale.

3.6.4 Burnout

Burnout was measured with the Copenhagen Burnout Inventory (CBI). The two subscales of the CBI that were employed are the personal burnout, and work-related burnout scales. Both of these scales have demonstrated excellent Cronbach's alphas (.87 for both scales) (Kristensen et al., 2005). Example items are "How often do you feel tired?" and "how often do you think: I can't take it anymore?" for personal burnout, and "do you feel warn out at the end of the working day?" and "do you feel that every working hour is tiring for you?" for work-related burnout (Kristensen et al., 2005). The decision was made to leave out the client-related burnout since the sample population will consist of a combination of participants who both do, and do not engage in a significant amount of "client work". The client-related burnout subscale would therefore only have been relevant to some participants, while not at all to others.

3.6.4.1 Descriptive Statistics and Item Analysis. An item analysis was conducted on both of burnout's subscales, namely personal burnout and work-related burnout. The descriptive statistics and item analyses of both subscales are presented below in Tables 3.10 – 3.12.

Table 3.10

The Means, Standard Deviation and Reliability Statistics for the Burnout Scale

Burnout subscales	Number of items	M	SD	**α**
Personal Burnout	6	16.53	4.96	.88
Work-related Burnout	7	18.80	5.35	.86

The results indicate that the Cronbach's alpha values for both personal burnout (0.88) and work-related burnout (.86) exceed .70. We can therefore conclude that the burnout subscales have good internal consistency. The item statistics of the burnout subscales are displayed below in tables 3.11 and 3.12.

Table 3.11

Item Statistics for the Personal Burnout Subscale

Variable	Item total correlation	Alpha if deleted
Item 1	.65	.86
Item 2	.68	.85
Item 3	.73	.85
Item 4	.72	.85
Item 5	.77	.84
Item 6	.55	.88

The item total correlation for the first four items in the personal burnout subscale all fall within a close range of each other (.65 – .72). Items 5 and 6 both fall outside of this close pairing, with a total correlation of .77 and .55. Deletion of these items will however not result in an increase in the subscale's Cronbach's alpha value. All the items of the personal burnout subscale were therefore retained.

Table 3.12

Item Statistics for the Work-related Burnout Subscale

Variable	Item total correlation	Alpha if deleted
Item 1	.60	.84
Item 2	.72	.83
Item 3	.66	.83
Item 4 (reversed)	.56	.85
Item 5	.50	.86
Item 6	.60	.84
Item 7	.77	.82

The item total correlations of all 7 items in the Work-related burnout subscale are spread out relatively evenly between .50 and .77, with no clear outliers. There is no item that, if deleted, would result in an improved Cronbach's alpha score. All 7 of the items were therefore retained.

3.6.5 Work Engagement

Work engagement was measured by the Utrecht Work Engagement Scale (UWES). More specifically, the UWES-17 version was utilised. The scale measures the three underlying factors constituting work engagement, namely vigour (6 items), dedication (5 items) and absorption (6 items), and is anchored in a 7-point likert scale, ranging from 0 (never) to 6 (always/daily), with high scores indicating work engagement (Schaufeli & Bakker, 2003).

The UWES has been used in various studies comprising of several different occupational groups (Schaufeli & Bakker, 2003). The psychometric properties of UWES-17 have been

investigated using an international database, including South Africa and 8 other countries. The sample included 10 occupation groups and 12 631 people. The UWES-17 showed excellent Cronbach's alphas for each subscale, with a Cronbach's alpha of .93 for the total scale (Schaufeli & Bakker, 2003).

3.6.5.1 Descriptive Statistics and Item Analysis. An item analysis was conducted on the three engagement subscales. The descriptive statistics and item analyses of both subscales are presented below in Tables 3.13 – 3.16.

Table 3.13

The Means, Standard Deviation and Reliability Statistics for the Engagement Scale

Engagement subscales	Number of items	M	SD	α
Vigour	6	28.89	5.01	.78
Dedication	5	26.13	5.07	.85
Absorption	7	28.60	5.05	.68

The results indicate that the Cronbach's alpha values for both vigour (.78) and dedication (.85) exceed 0.70. The absorption subscale however, reported a lower Cronbach's alpha (0.68). Although this falls below the .70 cut-off value for good internal consistency, it is only 0.02 below it. Consequently, it is expected that this will not have any significant impact on the results of the study. The item statistics of the engagement subscales are displayed below in tables 3.14 - 3.16.

Table 3.14

Item Statistics for the Vigour Subscale

Variable	Item total correlation	Alpha if deleted
Item 1	.58	.74
Item 2	.54	.74
Item 3	.59	.73
Item 4	.46	.77
Item 5	.57	.74
Item 6	.47	.76

The item total correlation for items 1, 2, 3 and 5 in the vigour subscale fall close range of each other (.54 – .59). Items 4 and 6 both fall outside of this close pairing, with a total correlation of .46 and .47. Deletion of any of these items will however result in a decrease in the subscale's Cronbach's alpha value. All the items of the vigour subscale were therefore retained.

Table 3.15

Item Statistics for the Dedication Subscale

Variable	Item total correlation	Alpha if deleted
Item 1	.75	.79
Item 2	.76	.79
Item 3	.74	.79
Item 4	.63	.82
Item 5	.44	.87

The item total correlation for the first 3 items in the dedication subscale all fall within a close range of each other (.74 – .76). Items 4 and 5, with the latter being a clear outlier, both fall outside of this close pairing, with item total correlations of .63 and .44. Deletion of item 4 will not result in an increase in the subscale's Cronbach's alpha value, while deletion of item 5 will. However, since the subscale contains only 5 items, and the deletion of item 5 will only result in small increase of .02 in the Cronbach's alpha value, it was decided to not delete the item. All the items of the Dedication Subscale were therefore retained.

Table 3.16

Item Statistics for the Absorption Subscale

Variable	Item total correlation	Alpha if deleted
Item 1	.44	.63
Item 2	.54	.59
Item 3	.29	.67
Item 4	.58	.59
Item 5	.56	.59
Item 6	.15	.74

The item total correlations for items 2, 4 and 5 all fall within a close range of each other (.54 – .58). Items 1, 3 and 6 all fall outside of this close pairing, with total correlations of .44, .29 and .15. Deletion of items 1 and 3 will not result in an increase in the subscale's Cronbach's alpha value. Deletion of item 6 will however result in an increase of .06 in the subscale's Cronbach's alpha value. Although an argument could be made that this would warrant the removal of item 6, the subscale already obtained an acceptable Cronbach's alpha value without the removal of the item. Additionally, the subscale's small number of items, as well as its demonstrated value in countless other studies contribute to the argument against the removal of item 6. Consequently, the decision was made to retain all the subscale's items, including item 6, and to report the subscale's lower internal consistency as a possible limitation of this study.

3.9 Ethical Considerations

The scientific considerations outlined above are not the only important matters that researchers must consider when conducting research. Certain potential ethical risks must be

considered to protect the dignity, safety, rights and well-being of the research participants. These potential risks arise due to researchers' interaction with participants and must therefore be taken into account prior to conducting the research (Babbie & Mouton, 2014). The researcher must ensure that he/she adheres to ethical practices like informed consent, confidentiality, voluntary participation, accountability, anonymity, responsiveness and ethical reporting. Adhering to these principles, amongst several others, will ensure that the research participants are protected, as well as that the research complies with the relevant legislation.

It is crucial that the research process protects the rights, dignity, safety, well-being, interests and privacy of the research participants. The purpose of this chapter is to outline the ethical standards that are defined in various codes of conduct, as well as to investigate and outline the potential risk factors that may cause concern during the research process.

3.7.1 Guiding Principles and Legislative Compliance

The National Health Act no. 61 of 2003 outlines certain obligations that researchers conducting research involving people must adhere to. These obligations include that ethical approval for the research must be obtained, any funding, as well as the source of the funding, must be declared, the research results must be timeously communicated to all relevant parties and stakeholders, the safety of the participants must be monitored, and any potential risk of harm must be minimized.

3.7.2 Informed Consent

Research participants have the right to be able to decide voluntarily whether they wish to participate in the research study. Legislation outlines the following rights of participants to ensure informed consent (Department of Health, 2013, p. 9):

Persons with whom research is to be conducted, or their legally authorised representative, have the right to be informed of:

(a) the purpose of the research;

(c) methods and procedures to be followed or used during research;

(d) alternatives apart from participating in the research;

(e) potential harms and risks involved in participation;

(f) expected benefits to the participant and other persons in the research;

(g) extent to which confidentiality and privacy will be maintained;

(i) details of the contact person in the event of a query or research related injury;

(j) reimbursement and/or incentives given for participation;

(m) their freedom to decline or withdraw from the research without prejudice; and

(n) proof of ethics committee approval or MCC approval, where relevant.

For the purposes of this study, the researcher obtained informed consent from all participants. The participant consent formulation is shown in annexure A.

Annexure 12 of the Ethical Rules of Conduct for Practitioners Registered under the Health Professions Act no. 56 of 1974 (Republic of South Africa, 2006, p.41) states that:

(1) A psychologist shall use language that is reasonably understandable to the research participant concerned in obtaining his or her informed consent.

(2) Informed consent referred to in subrule (1) shall be appropriately documented, and in obtaining such consent the psychologist shall –

(a) inform the participant of the nature of the research;

(b) inform the participant that he or she is free to participate or decline to participate in or to withdraw from the research;

(c) explain the foreseeable consequences of declining or withdrawing;

(d) inform the participant of significant factors that may be expected to influence his or her willingness to participate (such as risks, discomfort, adverse effects or exceptions to the requirement of confidentiality);

(e) explain any other matters about which the participant enquires;

(f) when conducting research with a research participant such as a student or subordinate, take special care to protect such participant from the adverse consequences of declining or withdrawing from participation;

(g) when research participation is a course requirement or opportunity for extra credit, give a participant the choice of equitable alternative activities; and

(h) in the case of a person who is legally incapable of giving informed consent, nevertheless-

(i) provide an appropriate explanation;

(i) obtain the participants assent; and

(ii) obtain appropriate permission from a person legally authorized to give such permission.

3.7.3 Protection of Confidentiality

All information collected via the survey questionnaire was anonymous and treated as confidential. The focus of this study is not to describe specific individuals' levels on the various latent variables, but rather to determine whether there are relationships between the latent

variables. The informed consent form highlighted the measures that were put in place to protect the participants' identity and data.

The data that was captured by the survey was only accessed and analysed by the researchers involved in the study. No hard-copy questionnaires were completed, and the digital copies are all kept safe in a password protected server.

3.7.4 Ethical Risks

This study does not involve the assessment of critical latent variables where the possibility of unusually high or low scores could indicate serious threats to the well-being of the research participants. Annexure 12 of the Ethical Rules of Conduct for Practitioners registered under the Health Professions Act (Act no. 56 of 1974) states that psychological researchers may disclose confidential information under the following circumstances:

A psychologist may disclose confidential information:

(a) only with the permission of the client concerned;

(b) when permitted by law to do so for a legitimate purpose, such as providing a client with the professional services required;

(c) to appropriate professionals and then for strictly professional purposes only;

(d) to protect a client or other persons from harm; or

(e) to obtain payment for a psychological service, in which instance disclosure is limited to the minimum necessary to achieve that purpose.

The informed consent formulation notified participants of points (a) and (b). There are no *prima facie* arguments to suspect the necessity for (d), and therefore no reference of it is made in the informed consent formulations. Although no specific steps have been taken to plan for

contingency support, Annexure 12 of the Ethical Rules of Conduct for Practitioners Registered under the Health Professions Act (Act no. 56 of 1974) will nonetheless be honoured if results indicate that the well-being of any research is threatened (Republic of South Africa, 2006, p.41).

An application for ethical clearance of the proposed research study was submitted to the Research Ethics Committee Human Research (Humanities) of Stellenbosch University. Subsequently, the research study classified by the Committee as a low-risk study.

The researcher maintained the following four principles in an attempt to uphold the principles of transparency, equity, participation, service, tolerance and mutual respect, dedication, scholarship, responsibility, academic freedom and the promotion of responsible conduct: (1) Justice, (2) academic freedom and dissemination of research results, (3) ethics approval of research and (4) responsibility for future science generations.

According to Stellenbosch University's Research Ethics Policy, all research involving human participants must comply with the following principles: (1) Be relevant to the needs and interests of the broader community. (2) Have a valid scientific methodology. (3) Ensure research participants are well informed about the purpose of the research and how the research results will be disseminated and have consented to participate, where applicable. (4) Ensure research participants' rights to privacy and confidentiality are protected. (5) Ensure the fair selection of research participants. (6) Be preceded by a thorough risk-benefit analysis. (7) Thorough care must be taken to ensure that research in communities is effectively coordinated and does not place an unwarranted burden on such communities (Stellenbosch University, 2012). Since this research study involved the interaction with human participants, the researcher also adhered to the abovementioned principles.

3.7.5 Risk Benefit Analysis

Although every possible step was taken to protect the participants of this study, the possibility that their dignity, rights, safety and well-being could be compromised remained. It was therefore crucial to investigate whether the purpose of this research study justified this compromise. The question that therefore arose was whether the costs that research participants incur due to participation in the research study is outweighed by its societal benefits. As highlighted in Chapter 1, this study aims to contribute to the well-being of "working man". It was predicted that this study will give insights into how occupational well-being is influenced by WILB. These insights will be of benefit to both organisations and employees. This study therefore serves a benevolent purpose, and it is expected that it will aid in improving our understanding of the processes underpinning the behaviour of working man.

3.10 Chapter Summary

This chapter provided a description of the methodological choices that were made to guide the research process, with the aim of enabling it to obtain answers to the relevant research initiating question and consequent hypotheses. In summary, an *ex post facto* correlational research design was used to collect data. Non-probability convenience sampling was employed to select an appropriate sample. Data was collected from South African office workers via a self-administered online questionnaire. The instruments that were employed in the questionnaire include the Workplace Internet Leisure Browsing survey, the Workplace Internet Leisure Browsing Acceptance survey, the Recovery Experiences Questionnaire, the Copenhagen Burnout Inventory and the Utrecht Work Engagement Scale -17. Item analysis, PLS-SEM and inner – and outer model evaluations were conducted to analyse the data and to test the hypothesised relationships. The next chapter will present the research findings.

4. Research Results

4.1 Introduction

This chapter contains the results of the PLS analyses that were conducted on both the measurement and the structural model. The focus is shifted from the validation results discussed in chapter 3, to the results of the composite (outer) measurement and the structural (inner) model.

4.2 Partial Least Squares (PLS) Results: Validating the Measurement (Outer) Model

The composite reliabilities, alpha coefficients and AVE results of the instruments that were employed in this study can be found in the tables below.

4.2.1 Composite Reliability

Table 4.1 contains the composite reliabilities of the various subscales. Composite reliability provides an estimate of the internal consistency of a construct (Hair et al., 2011). It differs from Cronbach's alpha in that it does not assume that all indicators are equally reliable. According to Hair et al. (2011), composite reliability values of .60 to .70 are regarded as satisfactory in exploratory research. As can be seen below in table 4.1 all the subscales achieved composite reliability scores that are well above the critical cut-off values mentioned above, with absorption and WILB acceptance achieving the lowest scores (.80).

Table 4.1

Composite Reliabilities of all Subscales

Scale	Composite Reliability
Personal Burnout	.91
Work-related burnout	.89
Relaxation	.96
Psychological Detachment	.88
Absorption	.80
Dedication	.89
Vigour	.85
WILB Acceptance	.80

4.2.2 Average Variance Extracted

Table 4.2 contains the AVE scores of all the subscales. AVE values represent the extent to which a measure positively correlated with another measure of the same construct, namely the measure's convergent validity. According to Hair et al. (2011) AVE values of .50 and higher are considered an indication that the measurement has a sufficient degree of convergent validity. This would entail that the latent variable at least explains half of the indicator's variance.

As can be seen below in table 4.2, all the subscales, except the absorption and the vigour subscale, achieved satisfactory AVE scores (>.50). We can therefore confidently claim that these constructs explain more than half of the variance in the relevant indicators. The absorption and vigour subscales achieved AVE values of .42 and .48 respectively. This, however, does not warrant the removal of these subscales from the current study. Instead, these results are indicated

as a limitation of the study and are considered to be a constraining factor in the measurement model.

Table 4.2

AVE Values of all Subscales

Scale	AVE
Personal Burnout	.62
Work-related burnout	.55
Relaxation	.85
Psychological Detachment	.66
Absorption	.42
Dedication	.63
Vigour	.48
WILB Acceptance	.58

4.2.3 Discriminant Validity

Discriminant validity represents how distinct a construct is from other constructs (Ravand & Purya, 2016). It therefore provides an indication of the amount of overlap between constructs. The Heterotrait-Monotrait (HTMT) method was employed to investigate discriminant validity. More specifically, the HTMT ratio assesses the average of the correlations of the indicators across constructs measuring different phenomena, relative to the average of the correlations of indicators within the same construct (Henseler et al., 2014). Moreover, two methods exist for evaluating discriminant validity with the HTMT ratio. The first method entails using the HTMT ratio as a criterion, while the second entails using it as a statistical test. It is the latter that was used for this study. This allows for constructing confidence intervals for the HTMT.

Table 5.3 below contains the HTMT ratio values that were used to evaluate discriminant validity. HTMT values of <1 indicate that the true correlations between two constructs should differ (Alarcón & Sánchez, 2015). Values of >1 are considered as indicators of a lack of discriminant validity. A confidence interval that contains the value 1 is considered as an indication that there is a lack of discriminant validity (Alarcón & Sánchez, 2015).

Table 4.3

Heterotrait-Monotrait (HTMT) Ratios

Variable	Ratio	95%lower	95%Upper	Discriminate
Psychological Detachment -> Personal Burnout	0.13	0.08	0.15	Yes
Relaxation -> Personal Burnout	0.15	0.07	0.25	Yes
Relaxation -> Psychological Detachment	0.79	0.65	0.89	Yes
WILB -> Personal Burnout	0.05	0.02	0.05	Yes
WILB -> Psychological Detachment	0.29	0.09	0.47	Yes
WILB -> Relaxation	0.33	0.13	0.49	Yes
WILB acceptance -> Personal Burnout	0.31	0.15	0.51	Yes
WILB acceptance -> Psychological Detachment	0.18	0.80	0.20	Yes
WILB acceptance -> Relaxation	0.13	0.06	0.18	Yes
WILB acceptance -> WILB	0.15	0.04	0.30	Yes
Work-related Burnout -> Personal Burnout	0.88	0.78	0.94	Yes
Work-related Burnout -> Psychological Detachment	0.11	0.09	0.09	Yes
Work-related Burnout -> Relaxation	0.17	0.08	0.25	Yes
Work-related Burnout -> WILB	0.07	0.04	0.08	Yes
Work-related Burnout -> WILB Acceptance	0.23	0.11	0.34	Yes
Burnout -> Personal Burnout	1.04	1.02	1.07	No
Burnout -> Psychological Detachment	0.12	0.10	0.10	Yes

Variable	Ratio	95%lower	95%Upper	Discriminate
Burnout -> Relaxation	0.16	0.01	0.24	Yes
Burnout -> WILB	0.06	0.05	0.06	Yes
Burnout -> WILB Acceptance	0.28	0.15	0.43	Yes
Burnout -> Work-related Burnout	1.06	1.04	1.10	No
Engagement -> Personal Burnout	0.60	0.47	0.69	Yes
Engagement -> Psychological Detachment	0.17	0.14	0.22	Yes
Engagement -> Relaxation	0.20	0.14	0.22	Yes
Engagement -> WILB	0.14	0.10	0.15	Yes
Engagement -> WILB Acceptance	0.21	0.16	0.22	Yes
Engagement -> Work Related Burnout	0.64	0.52	0.72	Yes
Engagement -> Burnout	0.60	0.47	0.69	Yes
Absorption (Engagement) -> Personal Burnout	0.54	0.36	0.68	Yes
Absorption (Engagement) -> Psychological Detachment	0.18	0.12	0.19	Yes
Absorption (Engagement) -> Relaxation	0.21	0.12	0.29	Yes
Absorption (Engagement) -> WILB	0.15	0.05	0.22	Yes
Absorption (Engagement) -> WILB Acceptance	0.28	0.13	0.36	Yes
Absorption (Engagement) -> Work Related Burnout	0.65	0.49	0.77	Yes
Absorption (Engagement) -> Burnout	0.65	0.45	0.73	Yes
Absorption (Engagement) -> Engagement	1.11	1.06	1.21	No
Dedication (Engagement) -> Personal Burnout	0.42	0.24	0.58	Yes
Dedication (Engagement) -> Psychological Detachment	0.08	0.07	0.07	Yes
Dedication (Engagement) -> Relaxation	0.20	0.08	0.36	Yes

Variable	Ratio	95%lower	95%Upper	Discriminate
Dedication (Engagement) -> WILB	0.11	0.03	0.23	Yes
Dedication (Engagement) -> WILB Acceptance	0.11	0.06	0.12	Yes
Dedication (Engagement) -> Work Related Burnout	0.52	0.40	0.65	Yes
Dedication (Engagement) -> Burnout	0.49	0.35	0.63	Yes
Dedication (Engagement) -> Engagement	0.96	0.91	1.01	No
Dedication (Engagement) -> Absorption (Engagement)	0.79	0.65	0.90	Yes
Vigour (Engagement) -> Personal Burnout	0.49	0.33	0.64	Yes
Vigour (Engagement) -> Psychological Detachment	0.21	0.10	0.27	Yes
Vigour (Engagement) -> Relaxation	0.13	0.08	0.13	Yes
Vigour (Engagement) -> WILB	0.12	0.05	0.15	Yes
Vigour (Engagement) -> WILB Acceptance	0.20	0.14	0.22	Yes
Vigour (Engagement) -> Work related Burnout	0.61	0.43	0.72	Yes
Vigour (Engagement) -> Burnout	0.57	0.41	0.70	Yes
Vigour (Engagement) -> Engagement	1.05	1.00	1.1	No
Vigour (Engagement) -> Absorption (Engagement)	0.94	0.80	1.03	No
Vigour (Engagement) -> Dedication (Engagement)	0.69	0.52	0.84	Yes

When inspecting the HTMT Ratios included in the table above, it is evident that all the measures, except six, achieved discriminant validity. Five of these six cases show a lack of discriminant validity, because subscales are being compared to the composite scales that they form part of. The exception, however, is the HTMT ratio of vigour and absorption. Although this looks problematic at first glance, there is an abundance of research that shows that these two

constructs are indeed two separate constructs. The measurement instrument that was utilised to measure them, the UWES-17, also has a proven track record of being able to discriminate between these two engagement subscales. Therefore, it was decided to retain all the measures and constructs that had been employed initially.

4.2.4 Evaluating the Outer Loadings

An evaluation of the outer loadings entails determining whether the indicator reliability is significant. In other words, it helps to determine whether the proportion of the indicator variance that is explained by the latent variable is significant (Wong, 2016). Table 4.4 contains the statistical information of the outer loadings of all the measurements that were employed in the study.

The statistical output is similar to that of the HTMT ratios displayed in table 5.3 above in that it contains 95% confidence intervals. It however differs in the sense that here loadings are not significant if the 95% confidence interval contains values that are smaller than zero. The p-value can also be evaluated as a test for the significance of the indicator reliability. P-values of >.05 are considered to be not significant at the 95% confidence interval.

Table 4.4

Outer Loadings

Item and Subscale	Ratio	95% lower	95% Upper	P -Value	Discriminate
Burnout 1 -> Personal Burnout	0.76	0.62	0.85	<0.01	Yes
Burnout 1 -> Burnout	0.68	0.53	0.79	<0.01	Yes
Burnout 2 -> Personal Burnout	0.79	0.70	0.85	<0.01	Yes
Burnout 2 -> Burnout	0.72	0.61	0.80	<0.01	Yes
Burnout 3 -> Personal Burnout	0.83	0.76	0.87	<0.01	Yes
Burnout 3 -> Burnout	0.76	0.68	0.82	<0.01	Yes

Item and Subscale	Ratio	95% lower	95% Upper	P -Value	Discriminate
Burnout 4 -> Personal Burnout	0.82	0.73	0.88	<0.01	Yes
Burnout 4 -> Burnout	0.78	0.68	0.85	<0.01	Yes
Burnout 5 -> Personal Burnout	0.85	0.73	0.88	<0.01	Yes
Burnout 5 -> Burnout	0.84	0.77	0.89	<0.01	Yes
Burnout 6 -> Personal Burnout	0.67	0.52	0.78	<0.01	Yes
Burnout 6 -> Burnout	0.64	0.48	0.76	<0.01	Yes
Burnout 7 -> Work related Burnout	0.71	0.60	0.80	<0.01	Yes
Burnout 7 -> Burnout	0.70	0.58	0.79	<0.01	Yes
Burnout 8 -> Work related Burnout	0.82	0.74	0.87	<0.01	Yes
Burnout 8 -> Burnout	0.8	0.71	0.86	<0.01	Yes
Burnout 9 -> Work related Burnout	0.77	0.37	0.85	<0.01	Yes
Burnout 9 -> Burnout	0.73	0.62	0.82	<0.01	Yes
Burnout 10 (reversed) -> Work related Burnout	0.68	0.53	0.79	<0.01	Yes
Burnout 10 (reversed) -> Burnout	0.62	0.46	0.75	<0.01	Yes
Burnout 11 -> Work related Burnout	0.61	0.45	0.74	<0.01	Yes
Burnout 11 -> Burnout	0.57	0.41	0.70	<0.01	Yes

Item and Subscale	Ratio	95% lower	95% Upper	P -Value	Discriminate
Burnout 12 -> Work related Burnout	0.70	0.55	0.81	<0.01	Yes
Burnout 12 -> Burnout	0.61	0.43	0.73	<0.01	Yes
Burnout 13 -> Work related Burnout	0.86	0.80	0.91	<0.01	Yes
Burnout 13 -> Burnout	0.82	0.73	0.89	<0.01	Yes
Engagement 1 -> Vigour (Engagement)	0.74	0.61	0.83	<0.01	Yes
Engagement 1 ->Engagement	0.64	0.47	0.76	<0.01	Yes
Engagement 2 -> Dedication (Engagement)	0.86	0.78	0.91	<0.01	Yes
Engagement 2 ->Engagement	0.72	0.62	0.82	<0.01	Yes
Engagement 3 -> Absorption (Engagement)	0.67	0.50	0.81	<0.01	Yes
Engagement 4 -> Vigour (Engagement)	0.74	0.63	0.83	<0.01	Yes
Engagement 4 -> Engagement	0.73	0.61	0.81	<0.01	Yes
Engagement 5 -> Dedication (Engagement)	0.87	0.82	0.92	<0.01	Yes
Engagement 5 -> Engagement	0.78	0.69	0.84	<0.01	Yes
Engagement 6 -> Absorption (Engagement)	0.75	0.63	0.83	<0.01	Yes
Engagement6	0.60	0.44	0.74	<0.01	Yes
Engagement 7 -> Dedication (Engagement)	0.87	0.81	0.91	<0.01	Yes
Engagement 7 -> Engagement	0.78	0.71	0.85	<0.01	Yes

Item and Subscale	Ratio	95% lower	95% Upper	P -Value	Discriminate
Engagement 8 -> Vigour (Engagement)	0.77	0.6	0.85	<0.01	Yes
Engagement 8 -> Engagement	0.71	0.53	0.82	<0.01	Yes
Engagement 9 -> Absorption (Engagement)	0.55	0.25	0.72	<0.01	Yes
Engagement 9 ->Engagement	0.55	0.30	0.71	<0.01	Yes
Engagement 10 -> Dedication (Engagement)	0.76	0.63	0.84	<0.01	Yes
Engagement 10 -> Engagement	0.60	0.45	0.74	<0.01	Yes
Engagement 11 -> Absorption (Engagement)	0.78	0.66	0.86	<0.01	Yes
Engagement 11 -> Engagement	0.70	0.54	0.81	<0.01	Yes
Engagement 12 -> Vigour	0.62	0.40	0.75	<0.01	Yes
Engagement 12 -> Engagement	0.55	0.34	0.69	<0.01	Yes
Engagement 13 -> Dedication	0.58	0.32	0.75	<0.01	Yes
Engagement 13 -> Engagement	0.50	0.03	0.66	<0.01	Yes
Engagement 14 -> Absorption	0.68	0.48	0.81	<0.01	Yes
Engagement 14 -> Engagement	0.57	0.35	0.73	<0.01	Yes
Engagement 15 -> Vigour (Engagement)	0.69	0.56	0.79	<0.01	Yes
Engagement 15	0.53	0.63	0.67	<0.01	Yes
Engagement 16 -> Absorption (Engagement)	0.21	-0.13	0.53	0.23	No
Engagement 16 -> Engagement	0.16	-0.13	0.42	0.26	No
Engagement 17 -> Vigour (Engagement)	0.59	0.37	0.73	<0.01	Yes

Item and Subscale	Ratio	95% lower	95% Upper	P -Value	Discriminate
Engagement 17 -> Engagement	0.43	0.26	0.61	<0.01	Yes
Psychological Detachment 1 -> Psychological Detachment	0.88	0.74	0.94	<0.01	Yes
Psychological Detachment 2 -> Psychological Detachment	0.89	0.76	0.95	<0.01	Yes
Psychological Detachment 3 -> Psychological Detachment	0.85	0.63	0.91	<0.01	Yes
Psychological Detachment 4 -> Psychological Detachment	0.57	0.02	0.80	<0.01	Yes
Relaxation 1 -> Relaxation	0.93	0.90	0.95	<0.01	Yes
Relaxation 2 -> Relaxation	0.95	0.93	0.97	<0.01	Yes
Relaxation 3 -> Relaxation	0.91	0.86	0.94	<0.01	Yes
Relaxation 4 -> Relaxation	0.89	0.78	0.95	<0.01	Yes
WILB Acceptance 1 -> WILB Acceptance 1	0.58	-0.30	0.96	0.701	No
WILB Acceptance 2 -> WILB Acceptance	0.91	-0.33	0.99	<0.01	No
WILB Acceptance 3 -> WILB Acceptance	0.91	0.31	0.96	0.02	No

When considering the abovementioned explanation of what qualifies as statistically significant, it is evident that most of the outer loadings seen in table 5.4 can be considered as statistically significant.

All three WILB acceptance items were found to have outer loadings that were statistically insignificant. The reason why these items performed so poorly is not clear. It could however be possible that the nature of the sample, as well as the sampling conditions, could have contributed

to this. The theorising the led to the creating of the WILB acceptance measure was largely based on the assumption that the individual in question will be in an office environment when he/she is engaging in WILB. Due to the COVID-19 pandemic, many participants in this study were not working in their normal office environments at the time that they completed the questionnaire. This could explain why the items in the WILB acceptance measure almost exclusively failed to perform satisfactorily. It should however be noted that WILB acceptance 3, although still statistically insignificant, can be considered as approaching significance, since it only missed the critical cut-off p-value with 0.1.

The only other item, apart from the WILB acceptance items, that performed poorly was engagement 16, which also failed to display statistically significant outer loadings. The abovementioned argument does not necessarily apply to this item. It is therefore still unclear what the cause of the poor performance was in this case. It was however decided to retain the item in the further analyses in order to maintain the integrity of the engagement construct.

4.3 Partial Least Squares Results: Validating the Structural (Inner) Model

The structural model (Figure 4.1) was scrutinised through the evaluation of the R^2 values, the multicollinearity and the path coefficients.

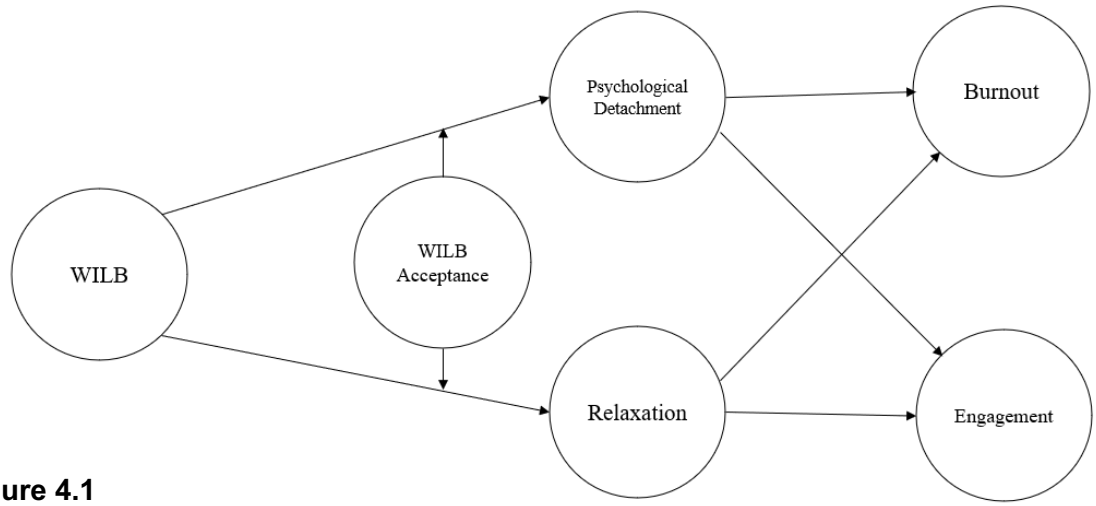

Figure 4.1

The Proposed Occupational Well-Being Structural Model

4.3.1 Evaluating the R^2 Values

The R-square (R^2) values (Table 4.5) provides an indication of the amount of variance in the endogenous variables that is explained by the exogenous variables. Table 4.5 displays the R^2 values of the endogenous variables in the Occupational Well-Being model.

R^2 values of smaller than .25 are generally considered as having weak predictive validity. All the endogenous variables in the model obtained R^2 values of below .25, with the lowest, burnout, with an R^2 of .02. The highest R^2 value (.17) was obtained by the relaxation variable. This means that 17% of the variance in relaxation is explained by the exogenous latent variables in the model. The remaining two endogenous variables, psychological detachment and engagement, obtained R^2 values of .12 and .06.

Table 4.5

R^2 Values of the Occupational Well-Being Structural Model

Variable	R Square
Burnout	.02
Relaxation	.17
Psychological Detachment	.12
Engagement	.06

4.3.2 Multicollinearity

Typically, many predictor values are present during a regression analysis. This does not pose a problem if the variables are uncorrelated. However, if they correlate too highly with one another, the result can be unstable regressions. To determine whether this is a problem in the current study, multicollinearity was tested by using the Variance Inflation Factor (VIF).

It is commonly accepted that VIF coefficients greater than five are considered problematic, and therefore that VIF coefficients smaller than five are considered acceptable. As can be seen below in table 5.6, all the VIF coefficients are smaller than five, with the largest being 1.732. There is therefore no indication of multicollinearity.

Table 4.6

Variance Inflation Factors

Variance Inflation Factors (VIF)				
Latent Variable	Psychological Detachment	Relaxation	Burnout	Engagement
Psychological Detachment			1.732	1.732
Relaxation			1.732	1.732
WILB	1.034	1.034		
WILB Acceptance	1.036	1.036		
WILB*WILB Acceptance -> Psychological Detachment	1.004			
WILB*WILB Acceptance -> Relaxation		1.004		

4.3.3 Evaluating the Main Effects

Table 4.6 below presents the significance of the hypothesised paths of the proposed model. Only two of the eight hypothesised paths are statistically significant. An argument could however be made that several of the paths that are not statistically significant could be considered as approaching significance. This will be elaborated on below in the interpretation of the results.

Table 4.7

Path Coefficients

Path	Path Coefficient	95% lower	95% Upper	Significance from CI	P-Value of T-Test
Psychological Detachment -> Burnout	0.04	-0.34	0.36	No	0.83
Psychological Detachment -> Engagement	- 0.28	-0.55	0.13	No	0.12
Relaxation -> Burnout	- 0.15	-0.47	0.2	No	0.39
Relaxation -> Engagement	0.31	-0.06	0.54	No	0.05
WILB -> Psychological Detachment	0.24	0.03	0.43	Yes	0.02
WILB -> Relaxation	0.31	0.13	0.48	Yes	<0.01
WILB* WILB Acceptance -> Psychological Detachment	-0.19	-0.40	0.12	No	0.16
WILB* WILB Acceptance Burnout	-0.23	-.038	0.07	No	0.05

Figure 4.2 depicts the Final Occupational Well-Being Structural Model. The paths that were found to be statistically significant are shown in green, while the non-significant paths are shown in red.

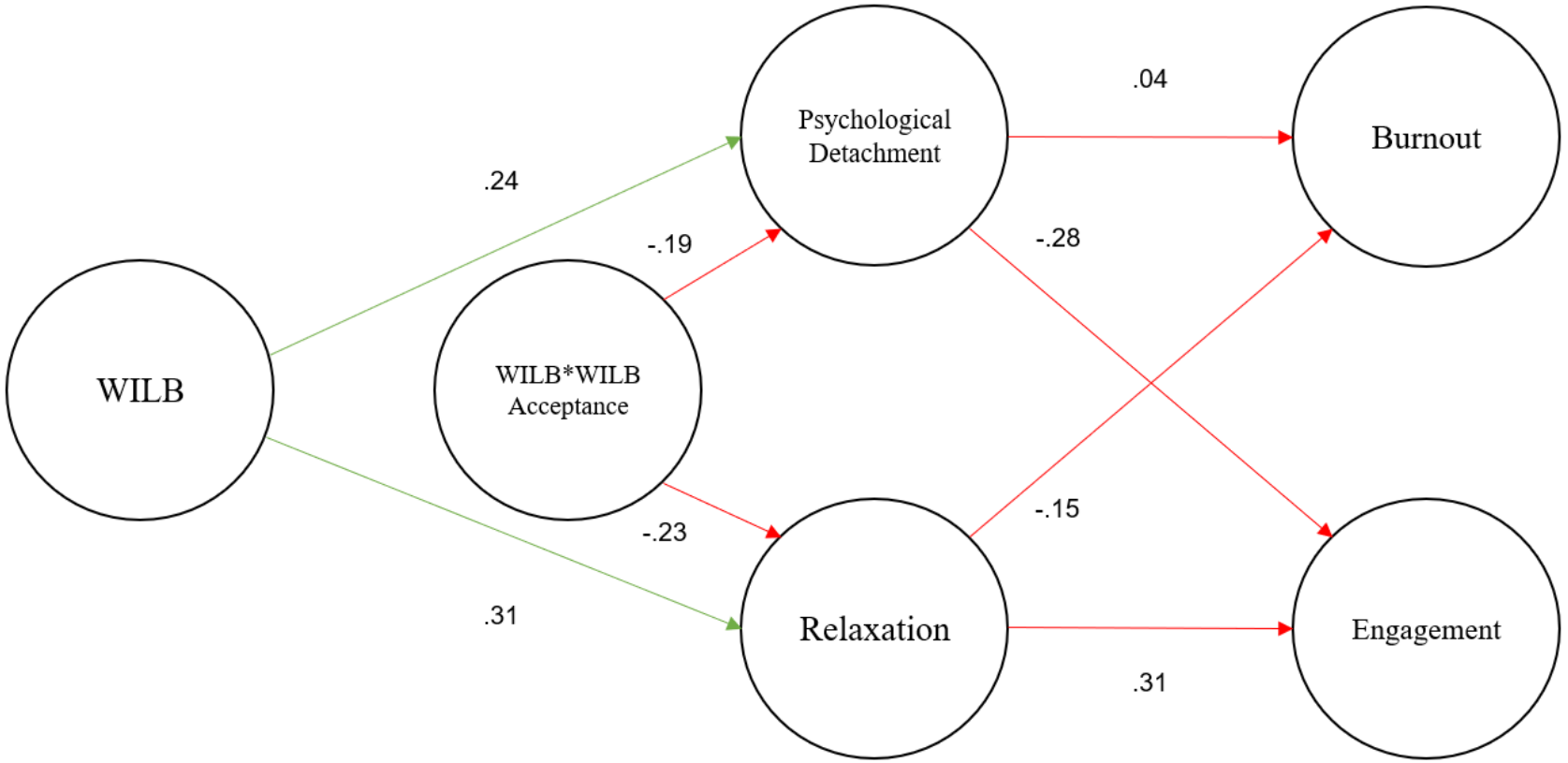

Figure 4. 2

The Final Occupational Well-Being Structural Model

4.3.4 Interpreting the Proposed Hypotheses

***Hypothesis 1**:* Workplace internet leisure browsing has a significant positive effect on psychological detachment

Hypothesis 2: Workplace internet leisure browsing has a significant positive effect on relaxation

The results displayed in table 4.6 indicate that both hypotheses 1 and 2 achieved statistically significant path coefficients. The path between WILB and psychological detachment (hypothesis 1) has a coefficient of 0.24, while the path between WILB and relaxation (hypothesis 2) has a coefficient of 0.31. These results support the theoretical argument made in chapter two regarding the impact of WILB on the two recovery experiences variables in question, namely psychological detachment and relaxation. This corroborates the findings of researchers like Janicke et al. (2017), Reinecke (2009) and Rieger et al. (2017) who have all demonstrated the impact of entertainment media on recovery experiences.

***Hypothesis 3*:** Workplace internet leisure browsing acceptance moderates the relationship between workplace internet leisure browsing and psychological detachment

***Hypothesis 4*:** Workplace internet leisure browsing acceptance moderates the relationship between workplace internet leisure browsing and relaxation

Both hypotheses 3 and 4 predict that the level of workplace internet leisure browsing acceptance will moderate the relationship between WILB and the two recovery experiences variables, namely psychological detachment and relaxation. Both hypothesised moderating

effects were found to be not statistically significant. The path coefficient for hypothesis 3 was -0.19 with a p-value of 0.16, while the path coefficient for hypothesis 4 was -0.23 with a p-value of 0.05. These results indicate that WILB acceptance did not have a statistically significant moderating effect on the relationship between WILB and the two recovery experiences variables, psychological detachment and relaxation.

***Hypothesis 5*:** Psychological detachment has a significant negative effect on burnout

Hypothesis 6: Psychological detachment has a significant positive effect on engagement

The hypothesised relationships between psychological detachment and the two occupation well-being variables, burnout and engagement, were found to be not statistically significant. The path coefficient between psychological detachment and burnout (hypothesis 5) was 0.04, with zero falling within the 95% confidence interval, and a p-value of 0.83. The path coefficient between psychological detachment and engagement (hypothesis 6) was -0.28, with zero falling within the 95% confidence interval, and a p-value of 0.12. These findings are in stark contrast with those of researchers like Siltaloppi et al. (2009), Pennonen (2011), Nasharudin et al. (2020) and Dalal (2005), who have all demonstrated significant relationships between the variables in question.

***Hypothesis 7*:** Relaxation has a significant negative effect on burnout

***Hypothesis 8*:** Relaxation has a significant positive effect on engagement

The hypothesised relationships between relaxation and the two occupation well-being variables, burnout and engagement, were found to be not statistically significant. The path coefficient between relaxation and burnout (hypothesis 7) was -0.15, with zero falling within the 95% confidence interval, and a p-value of 0.39. The path coefficient between relaxation and

engagement (hypothesis 6) was 0.31, with zero falling within the 95% confidence interval, and a p-value of 0.05. These findings are, along with those of hypotheses 5 and 6, in stark contrast with the findings of researchers like Siltaloppi et al. (2009), Pennonen (2011) and Dalal (2005), who have all demonstrated significant relationships between the variables in question.

4.4 Chapter Summary

This chapter contained the discussion of the statistical analyses that were performed in this study. The PLS results of the structural model were the main areas of focus here. First, the measurement (outer) model was evaluated. This was followed by an evaluation of the structural (inner) model.

With the evaluation of the outer model, most of the measurement scales were found to be satisfactory. One item of the engagement scale failed to display statistically significant outer loadings. The reason for this item's poor performance is unclear. It was however decided to retain the item in order to maintain the integrity of the engagement construct. A more problematic measurement scale was the WILB acceptance scale. All three WILB acceptance items were found to have outer loadings that were statistically insignificant. It is likely that the sampling conditions led to the poor performance of the measurement instrument.

The validation of the inner model showed that none of the measures had any problems with regards to multicollinearity. The evaluation of the main effects however showed that only two of the eight hypothesised paths of the proposed model were statistically significant.

The following chapter will build on these results by providing an in-depth discussion thereof, as well as by expanding on the practical implications that the research holds. This will be followed by a discussion of the limitations of the study, recommendations for future research and the managerial implications of the study.

5. Discussion, Practical Implications, Recommendations and Limitations

5.1 Introduction

Chapter 1 provided a contextualisation of the study, as well as an overview of the research initiating question and the research objectives. Thereafter, Chapter 2 provided a literature review of the relevant variables along with the hypotheses that were derived from the literature review. Chapter 3 detailed the methodology that was employed to collect and analyse the data used in the study. It also provided the sample characteristics, as well as an evaluation of the reliability and the validity of the measurement instruments that were used in the study. Chapter 3 also provided a discussion of the ethical considerations and the risk evaluation of the study. The research results were discussed in Chapter 4. This entailed the validation of both the measurement and the structural model, as well as an analysis of the hypotheses. The final chapter, Chapter 5, aims to discuss the relevant statistical results from previous chapters. It will also outline the limitations of this study, as well as the recommendations for future research. To conclude, the practical implications of the research results will be discussed.

5.2 Discussion

The study was driven by the following research initiating question: What causes variance in the occupational well-being of South African office workers? The core aim of this study was therefore to develop and empirically test a structural model, based on current literature, that explains the antecedents of variance in occupational well-being among South African office workers.

The study focused on the following research objectives in order to address the research initiating question:

Objective 1: Determine the levels of engagement and burnout in a sample of South African office workers.

Objective 2: Develop a conceptual model that depicts salient variables explaining engagement and burnout.

Objective 3: Develop and test a structural model that depicts salient variables explaining engagement and burnout.

Objective 4: Interpret the results and managerial implications of the research findings and recommend practical interventions for organisations.

The statistical analyses in Chapter 4 aimed to test eight research hypotheses. Six of the hypotheses described direct effects, while the remaining two described moderating effects. Of the eight hypotheses in this study, only two were found to be statistically significant, with the remaining six being statistically insignificant.

The first hypotheses that will be discussed are hypotheses 5 – 8. These all describe the expected relationships between the two recovery experiences variables, namely psychological detachment and relaxation, and the two occupational well-being variables, namely burnout and engagement. Recovery experiences refer to the underlying processes that allow individuals to restore replenished resources (Sonnentag & Geurts, 2009). Although there are four types of recovery experiences, namely psychological detachment, relaxation, mastery and control, only the former two were employed in this study, with mastery being completely left out and control being adapted into what has been referred to as WILB acceptance. The reasoning behind this is described in detail in chapter two. Thanks to positive psychology, occupational well-being is now no longer understood as merely the absence of strain, like burnout, but also as a positive state,

like work engagement (Hakanen & Schaufeli, 2012). Consequently, to investigate the level of occupational well-being in office workers, this study focused on measuring workers' levels of burnout and engagement.

Siltaloppi et al. (2009) investigated the impact of recovery experiences on occupational well-being using work engagement and job exhaustion, which are core dimensions of burnout, as occupational well-being indicators. They found that recovery experiences were related to each well-being indicator that was examined (Siltaloppi et al., 2009). The relationships between the recovery experiences and occupation well-being variables that were employed in this study have also been demonstrated by other researchers like Siltaloppi et al. (2011), Nasharudin et al. (2020), Trougakos et al. (2008), Dalal (2005), Pennonen (2011), Demerouti (2015) and de Bloom et al. (2015), to name only a few. It was therefore surprising that hypotheses 5 – 8 were found to be non-significant.

It is worth noting that two of the abovementioned paths were only marginally non-significant. The p-value of the relationship between psychological detachment and engagement was 0.12 with a path coefficient of -0.28. Although an argument could be made that the relationship is approaching significance, the direction of the relationship is opposite to what was hypothesised, as well as what previous research had demonstrated. These results are therefore still unexpected. The p-value of the relationship between relaxation and engagement was 0.05 with a path coefficient of 0.31, which, along with the path coefficient between WILB and relaxation, is the largest path coefficient in the current study. Unlike in the case of the relationship between psychological detachment and engagement, an argument can be made here that these results are somewhat indicative of a significant correlation between relaxation and engagement.

The abovementioned findings, especially if the relationship between relaxation and engagement is considered as one that has merit, are in line with the findings of de Bloom et al. (2015). Their research found a significant positive correlation between relaxation and work

engagement, while at the same failing to demonstrate a correlation between psychological detachment and work engagement. De Bloom et al. (2015) previously acknowledged that this result was unexpected, given the prevailing view that psychological detachment may even be the most important recovery experience. Although similar results were also found by de Jonge et al. (2012), more research is needed to gain more clarity on these somewhat inconsistent and puzzling findings.

The remaining two non-significant paths describe the moderating effect of WILB acceptance between WILB and the two recovery experiences variables. The creation of these two hypotheses can be considered as the most ambitious in the whole model. This is since prior to this study, and as far as the researcher is aware, no research on the topic exists. It was the researcher's study of the Ego Depletion Theory (EDT), as well as previous research on person-break fit that lead to the conceptualisation of what is referred to in this study as WILB acceptance. In short, EDT postulates that regulatory behaviour results in the depletion of energy resources. It was therefore reasonable to think that, when someone engages in WILB in a workplace where that behaviour is not considered as acceptable, he/she would have to tap into their regulatory resources by constantly being on the lookout to make sure that no one sees what they are doing. This, theoretically, could lead to that person not being able to fully experience the recovery that could have been experienced from engaging in WILB.

The abovementioned line of reasoning was supplemented by findings of researchers like Venz et al. (2019), Rupp et al. (2017) and Trougakos et al. (2014) who found that people gain greater resource recovery when they engage in self-chosen breaks. It was argued that, when WILB acceptance is high, employees will more easily engage in the WILB behaviours that they want to engage in, like watching a YouTube video. When WILB acceptance is low, however, employees might still engage in WILB, but in forms of WILB that could be considered as more acceptable, like reading articles or responding to personal emails. These forms of WILB could still

allow recovery experiences to take place, but they might not be optimal in terms of their person-break fit.

Despite the abovementioned comments about the ambitiousness of the two WILB acceptance hypotheses, it was still surprising that the paths were found to be non-significant. As in the case of two of the paths between the recovery experiences variables and the occupational well-being variables, an argument could be made here that the hypothesised paths were only marginally non-significant. The p-value of WILB acceptance's moderating effect between WILB and psychological detachment was 0.16 with a path coefficient of -0.19, while the p-value of WILB acceptance's moderating effect between WILB and relaxation was 0.05, with a path coefficient of -0.23. The direction of the correlation in both cases is however the opposite of what was predicted. It is however not possible to claim that there is likely a relationship since the hypothesised paths are approaching significance (albeit that the direction of the relationship is simply the opposite of what was hypothesised). The reason for this is that, to the best knowledge of the researcher, there is no prior research on the topic. It would seem more likely that the time during which the data collection took place influenced the research results. Data collection happened during the national lockdown that was implemented due to the spread of the Corona virus. Consequently, many individuals were working from home at the time. Considering that WILB acceptance is a measure of the attitudes of one's co-workers and superiors towards WILB, this situation would likely have had an impact on the research results for this factor. These research conditions and their possible impact on the findings in this study will be elaborated on in the remainder of the current chapter.

Hypotheses 1 and 2 which describe the relationships between WILB and the two recovery experiences variables were found to be statistically significant. The results of this study therefore indicated that there is a positive correlation between WILB and both psychological detachment and relaxation. Research on the relationships between these constructs is very sparse. The

development of hypotheses 1 and 2 was sparked by the realisation that WILB forms part of a broader category of activities that can be considered as work breaks. This allowed the researcher to employ the same line of reasoning that other work break studies had followed. In summary, it was argued that according to the limited resource model of behaviour regulation, break activities that involve the engagement in preferred behaviour, like WILB, should allow for resource recovery to take place (Trougakos et al., 2008).

The abovementioned results are supported by the findings of Janicke et al. (2017), who showed that the positive affect derived from watching funny videos led to psychological detachment and relaxation. These findings are also in line with the previously discussed research on within-workday micro-breaks. It also supports previous research that was done within the framework of the Effort Recovery (E-R) model. The research of Kim et al. (2017) is specifically relevant here. They found that on days that employees engaged in their chosen activities during micro-breaks, they were more likely to experience momentary recovery. Their findings, along with those of the current study, provide support to the E-R model's notion that ceasing work effort temporarily by taking breaks, can help individuals to recover the resources that they depleted as a result of their work demands (Kim et al., 2017).

5.3 Limitations and Recommendations for Future Research

While this study makes several contributions, it must still be acknowledged that it also faced several limitations. These limitations relate to methodological challenges and the psychometric properties of some of the measuring instruments. It is unlikely that these limitations nullify the contributions of this study. Instead, they provide guidelines for areas that future studies can improve on.

The first methodological challenge that was faced was the timing of the data collection. The data collection was scheduled to start roughly around April 2020. That was when the country

went into a national lockdown in an attempt to curb the escalation of COVID-19 infections. Since both independent variables of the study are workplace-related, the researcher decided to postpone data-collection until people could return to their work-offices. Unfortunately, the lockdown period turned out to be much longer than initial estimates suggested it would be. With pressure to meet the research deadlines, the decision was made to start the data collection in September 2020. It was also during this time that the lockdown level was moved from level 2 to level 1.

Although most people were legally allowed to return to their work-offices during that period, it was clear that many people were still too afraid to do so, and rather continued to work from home. Consequently, the researcher requested that respondents should answer the questions as if they were still working in their offices, like they would have before the pandemic started. It is possible that some of the participants were able to answer the questions similarly to how they would have under normal circumstances. It is however also very possible, and perhaps more likely, that the fact that most people had already been unable to work in their office environments for roughly four months by the time that they completed the questionnaire, had a significant impact on their responses.

The abovementioned challenge is one that future researchers should hopefully not have to face. It is therefore suggested that this study should be replicated by future researchers when the COVID-19 pandemic is finally a thing of the past. This should not only serve as a more accurate reflection of the levels of the relevant variables and the relationships between them, but it would also allow for interesting insights into the psychological and behavioural impact that the pandemic had on office workers.

The abovementioned timing also likely had an impact on the sample size of the study. Since the sample population was South African office workers, it is possible that many participants who, under normal circumstances would consider themselves to be office workers, did not do so

during the time that the data was collected for the study, therefore lowering the amount of people who identified with the sampling criteria. The demographic composition of the sample also raises concerns regarding the generalisability of the findings. Although the sample consisted of a similar number of males and females, it consisted of predominantly young, white people, with 63% of the sample between the ages of 20 and 29, and 87% of the sample being white. This is likely due to these groups' proximity to the researcher.

Building on the first recommendation, it is not only recommended that the study is replicated under "normal" circumstances, but also that researchers make use of a larger, more demographically diverse, sample. A larger sample size should under normal circumstances be relatively easy to achieve. It might however be more challenging to ensure that the sample is diverse. Although the researcher has not come across any studies that prove that age and race should play a role in the relevant phenomena, having a more diverse sample will help with the generalisability of the findings. A possible way to ensure a more equal demographic composition would be to allow multiple organisations to distribute the questionnaires to their employees. By doing this, the demographics of the sample should not be affected by the researcher's demographics.

The psychometric properties of some of the instruments that were utilised in this study also raised some concerns. The most notable is the AVE of two of the engagement subscales, namely absorption and vigour. AVE scores of >.50 are generally considered as satisfactory evidence of the measure's convergent validity. The absorption and vigour subscales achieved AVE values of .42 and .48. Although this did not warrant the removal of these subscales from the current study, it can be considered as a constraining factor in the measurement model. Since the measurement instrument that was employed to measure engagement, namely the UWES, has demonstrated satisfactory psychometric properties in many other studies, it is likely that one of the abovementioned methodological challenges caused the lower AVE scores in this study.

Addressing those challenges could therefore also aid in improving the psychometric properties the measurements used in this study.

In Chapter 2 it was argued that, within the context of office workers engaging in WILB, only two of the four mastery experiences will be relevant. Consequently, the remaining two recovery experiences, namely mastery and control (in its original conceptualization), were excluded from the study. New research that was published in 2020 however suggests that valuable insights could have been missed with the exclusion of these two recovery experiences. Chawla et al. (2020) investigated the impact that daily recovery experiences have on next-day well-being and work behaviours. They found that evenings that were characterised by high levels of psychological detachment, relaxation and control, but without mastery, were correlated with lower work engagement, personal initiative and helping the next day (Chawla et al., 2020). Their research suggests that mastery experiences may play a vital role in the relationship between recovery experiences and occupational well-being. It is therefore recommended that future research includes all four of the recovery experiences when investigating their relationship with occupational well-being.

The current study only focused on a population of office workers. This was done with the aim of providing employers with insights into what the best personal internet use policies for their organisations could be. Future studies could expand on this by conducting a similar study on a different population of knowledge workers. Other knowledge workers might not necessarily be office workers, and consequently, workplace personal internet use policies will not necessarily apply to them. However, it could still be beneficial to determine what the impact of personal internet use is on the occupational well-being of individuals like teleworkers, who are not required to be in their offices every day. Such a study would give broader insights into the personal monitoring of internet leisure browsing during “working hours”.

Another limitation of this study is that it relied on self-report data. Using self-report measures are convenient, because they allow for the collection of data from a large sample at a low cost (Sallis & Saelens, 2000). It however allows for impression management and method bias. Consequently, there is a risk that participants answer the questionnaires in such a manner that they attempt to present themselves in a positive light. Relying only on self-report questionnaires can therefore lead to compromised predictor correlations (Avey, 2014). Future researchers can incorporate objective measures in the data collection process, but should also be vigilant of egocentric and observational biases, which are both risks that are associated with objective measures.

The final limitation of this study is that it employed a cross-sectional design. This design is useful for allowing the researcher to get a snapshot of the relevant phenomena at a specific point in time. It however prevents the researcher from being able to draw conclusions regarding causality (Taris & Kompier, 2006). The examination of office workers' levels of the various variables contained in the Occupational Well-being model at more than one point in time could prove to be valuable for future research. This will allow the researcher to gain a better understanding of the relationships between the relevant variables, which will in turn hold more valuable insights for both employees and employers.

5.4 Managerial Implications

Previous studies on WILB, often referred to as cyberloafing, indicate that the total time that employees spend on WILB is roughly between 9.4% and 13.3% of their worktime (Jandaghi et al., 2015; Lim & Chen, 2012). This means that on average, with a 9-hour workday, employees spend about 61min on WILB activities. Interestingly, the participants in this study spent on average 29.9% of their workday engaging in WILB. This is a major increase compared to the abovementioned studies. It is also significantly higher than the researcher's most ambitious estimates prior to data collection. It is possible that this high average is influenced by the

demographic composition of the sample, since 63% of the sample falls between the ages of 20 and 29. This is however unlikely to be the primary reason, since the average age of the participants in the abovementioned Lim & Chen (2012) study was 28. In addition to this, Mercado et al. (2017) conducted a meta-analytic study of cyberloafing, and their results indicate that age was not a predictor of greater levels of cyberloafing.

Since age does not seem to be the cause of the higher average percentage of worktime spent on WILB, other possibilities should be considered. The next, and possibly the most likely, factor that could have played a role is the time frame in which the data collection happened. This is something that was elaborated on in the previous section of this chapter. It is however relevant and worth noting here as well. The data collection happened roughly four months into the first national lockdown of 2020. This meant that most people were still working from home, which could have influenced the amount of time that they spent on WILB. It also, importantly, could have influenced the emotional states of people in general. Previous studies on the antecedents of WILB hold valuable insights that might provide a better understanding of the current study's findings. Lower levels of job involvement and intrinsic involvement, a lack of organisational commitment, organisational justice, job satisfaction, job stress, job security, role conflict and the extent to which employees identify with their work have all been demonstrated to be predictors of WILB (Jandaghi et al., 2015; König & Caner De La Guardia, 2014; Liberman et al., 2011). It would therefore be reasonable to expect that the impact of the pandemic could have shifted the levels of some of the abovementioned variables away from what would be considered as their norms.

The argument made in the above paragraph, as well as that the purpose of this section is to describe the implications of the current study's findings under normal circumstances rather than during a pandemic, serves as the motivation for why the research by Jandaghi et al. (2015) and Lim and Chen (2012) should rather be used as an estimation of the amount of time the employees typically spend on WILB.

It can be argued that the most valuable contribution that this study made was to address the gap in literature regarding the psychological effects of surfing the internet at work. To this point, it demonstrated a significant positive correlation between WILB and the two recovery experiences variables. It therefore showed that surfing the internet in work breaks can have positive psychological effects. Although the study did not demonstrate significant relationships between both recovery experiences variables and the occupation well-being variables, the relationship between two of them, namely between relaxation and engagement, can be considered as approaching significance. There is also enough prior research that have demonstrated significant correlations between recovery experiences and occupation well-being to consider that the limitations of this study, particularly those surrounding the timing of the data collection, could have caused the contradictory results obtained in this study.

The managerial implications of this study's findings suggest that, for the typical office worker, WILB should not necessarily be considered as something that is by default a threat and that should therefore be punished. It is this line of thinking that caused the current study to depart from referring to surfing the internet during worktime as "cyberloafing". It should however be noted that it is unlikely that the positive psychological effects gained from engaging in WILB will allow employees to maintain or improve their productivity if, like many of this study's participants, they are spending a third of their typical workday surfing the web. Excessive WILB will therefore be difficult to justify and will almost certainly negatively impact worker performance. Excessive WILB, or spending an excessive amount of work time on anything other than work for that matter, should be dealt with. Suggestions for how to do this will follow later in the section.

The idea of employees surfing the internet when they should be working is something that many managers are uncomfortable with. On the surface, it seems logical that any time that is not spent on performing work, is money that is lost on behalf of the employer. This line of reasoning tends to be based on the displacement hypothesis, which explains that time spent on using one

medium replaces the time that is spent on others (Huang, 2010). The results from a meta-analytic investigation of WILB indicated that this argument is perhaps an oversimplification of the reality. Specifically, the study found that WILB is only negligibly related to job performance (Mercado et al., 2017). Additionally, the displacement hypothesis, and the workplace practices that stem from it, fails to take into account three important considerations.

The first important consideration is that, according to the limited resource model of behaviour regulation, people must take breaks in order to restore the resources that they have depleted while working (Trougakos et al., 2008). This view is also supported by the E-R model which asserts that ceasing work effort temporarily by taking breaks can help individuals to recover the resource that they replenished as a result of their work demands (Kim et al., 2017).

Central to the E-R model is the idea that employees must expend effort to meet work demands (Pennonen, 2011; Kim et al., 2017). The E-R Model states that normal load reactions, like fatigue and a poor ability to concentrate, are unavoidable and are caused by the effort expenditure at work (Pennonen, 2011). Not allowing employees to take breaks that will help them to recover their resources will therefore ultimately have a negative impact on their performance.

Although scheduled work breaks exist exactly for the abovementioned purpose, employees might need to take additional “micro-breaks”, like informally chatting with colleagues or smoking a cigarette, which are both examples of micro-breaks that are commonly considered as being acceptable. For those managers who view WILB as a threat, it will seem easier to try to punish or block WILB activities, while allowing the abovementioned breaks, since they should in theory allow employees to restore their replenished resources. Although this could be effective for some employees, it is unlikely to be the optimal strategy. This is because person-break fit is important in allowing optimal recovery to take place. More specifically, research has found that individuals who perceived high person-break fit reported lower negative post-break effect than those with low person-break fit (Venz et al., 2019). Trougakos et al. (2014) also found that self-

chosen breaks, which are a result of having autonomy over which types of breaks you can make use of, support higher levels of recovery. Allowing employees to have control over how they spend their work breaks, whether these breaks are lunch breaks or micro-breaks, will likely yield the best results in terms of resource recovery. This is also supported by research on the effects of micro-breaks on job performance. Kim et al. (2018) found that employees can increase their affective resources when they are able to engage voluntarily in respite activities during micro-breaks. They also specifically demonstrated that micro-break activities that were personally entertaining for the employee boosted positive affect (Kim et al., 2018).

The second important consideration is the psychological impact that blocking or controlling internet access in the workplace has on employees. Most working adults feel that WILB is acceptable, with many of them believing that it is a way to improve performance and to balance working and living (Coker, 2011; Anandarajan, 2006; Lee et al., 2007). Consequently, efforts by employers to control WILB can result in resentment, feelings of lacking autonomy and being over-controlled, as well as eroding levels of job satisfaction, loyalty and motivation to perform (Coker, 2011). The Self Determination Theory postulates that people find it necessary to feel as if they have a sense of control and autonomy in their actions (Coker, 2011). Research has also demonstrated that providing employees with autonomy positively impacts their work outcomes (Coker, 2011). Additionally, research has demonstrated that providing employees with the autonomy to carry out tasks of their own volition in the workplace leads to greater job satisfaction, loyalty, quality of work and creativity (Coker, 2011; Baard et al., 2006). It is therefore clear that attempting to block employees from engaging in WILB can be a risk in terms of causing negative psychological effects. At the same time employers can lose out on the opportunity of benefiting from the positive effects of providing employees with autonomy.

The third and final important consideration is that technology is advancing at an exponential rate. The advancements in mobile technology, virtual private networks and more

recently, smart glasses, have made it nearly, if not completely impossible to block employees from surfing the internet at work. To completely prevent WILB will be more costly in terms of technology and employee turnover than the potential financial loss due to WILB.

It therefore follows that the best way to approach the phenomenon of WILB is to implement more lenient personal internet use policies. In addition to the aforementioned arguments, an overarching belief underpinning this recommendation is that there should be a shift from focusing on employee input to employee output. It is ultimately the work that employees do, rather than the time that they spend working, that adds value to organisations.

The above recommendation echoes what Hamermesh (1990, as cited in Ivarsson and Larsson 2012) has suggested in his discussion of work breaks. He states that employees should have the right to take breaks to recover during the workday without being subjected to disciplinary action. Ivarsson and Larson (2012) go on to describe eight situations where employees should be allowed to devote time to WILB. They recommend that employees should be allowed to use the internet for personal purposes under the following conditions: (1) if their workload is so excessive that it might affect their health, (2) during unproductive time or down time, (3) as long as their daily output is sufficient, (4) in order to stimulate and initiate creativity, (5) if their work allows multitasking, (6) if it does not jeopardise safety, (7) if it does not affect co-workers and (8) if it does not affect customers, clients or patients.

The question that remains however, is how to deal with cases where WILB is excessive, and clearly has a negative impact on work performance. Here an argument could potentially be made for implementing measures to control the amount of WILB that employees engage in. Measures can include internet monitoring software and more stringent internet usage policies. These potential solutions could however fall into the abovementioned trap of having unintended negative consequences. As also argued above, technological advancements have made it unlikely that attempts at blocking internet usage will be successful. Interestingly, research has

also demonstrated that many employees who are faced with an increased severity of sanctions for not complying with internet usage policies become less likely to comply with those policies (Glassman et al., 2015).

Consequently, it seems as if the most productive solution would be rather to determine the cause behind specific employees' engagement in excessive WILB. When employees spend an excessive amount of time on WILB, or any other non-work-related activity for that matter, it is likely a result of a bigger underlying problem. This means that the non-work-related activity is likely only a symptom of the problem, and consequently suggests that the most productive approach would be to determine and address the underlying problem. Several antecedents of WILB were referenced earlier. These included lower levels of job involvement and intrinsic involvement, a lack of organisational commitment, organisational justice, role conflict, job satisfaction, job stress, job security and the extent to which employees identify with their work (Jandaghi et al., 2015; König & Caner De La Guardia, 2014; Liberman et al., 2011). Addressing these, or whichever antecedents have been identified in the process, will likely yield the most productive results. Such interventions could lower the levels of employee WILB, as well as have other unintended positive effects, since improvements in many of the abovementioned antecedents have also been linked to other positive outcomes.

The abovementioned recommendation is in line with that of Mercado et al. (2017). In a meta-analytic study of WILB, they found that monitoring initiatives and sanctions that aim at limiting WILB are largely ineffective. Consequently, they recommend interventions that are focused on targeting the antecedents of WILB, like making job design considerations to account for disengaged and bored employees.

5.5 Conclusion

This study was driven by the following research initiating question: What causes variance in the occupational well-being of South African office workers? The core aim of this study was therefore to develop and empirically test a structural model, based on current literature, that explains the antecedents of variance in occupational well-being among South African office workers. In doing so, this study contributed to work break, as well as occupational well-being literature.

The most notable contribution that this study made was to add to the admittedly small, but growing body of knowledge on the psychological effects of WILB. The findings of this study can provide employers with greater insights into how they should view and approach WILB. It is the researcher's hope that these insights, along with the recommendations made in the above section, can motivate employers to re-evaluate their attitudes and policies towards WILB.

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Annexure A: Informed Consent Form

Dear prospective participant.

My name is Alexander Stander, a student at the Department of Industrial Psychology at Stellenbosch University, and I would like to invite you to take part in a survey, the results of which will contribute to a research project in order to complete my Master's in Industrial Psychology.

Please take some time to read the information presented here, which will explain the details of this project. Your participation is entirely voluntary, and you are free to decline to participate. If you say no, this will not affect you negatively in any way whatsoever. You are also free to withdraw from the study at any point, even if you do initially agree to take part. If you wish to withdraw after you have already started to fill in the survey, you can simply close your internet browser, which will result in your answers being deleted and therefore not being submitted.

The purpose of the study is to investigate the factors influencing occupational well-being among South African office workers. The study will investigate the relationship between using the internet for leisure during working hours (referred to as Workplace Internet Leisure Browsing) and Occupational Wellbeing.

The survey will take approximately 10 minutes to complete and will contain a combination of questions covering Workplace Internet Leisure Browsing, Work Engagement, Burnout, etc.

RIGHTS OF RESEARCH PARTICIPANTS:

You have the right to decline answering any questions and you can exit the survey at any time without giving a reason. You are not waiving any legal claims, rights or remedies because of your participation in this research study. If you have questions regarding your rights as a research participant, contact Mrs. Maléne Fouché [mfouche@sun.ac.za; 021 808 4622] at the Division for Research Development.

You will not have to provide your name when completing the survey. Any other requested personal information will be used solely for descriptive statistics to describe the sample. The biographical variables that are included in this survey, including age, gender, race and employment details are included only for the purpose of comprehensively describing the sample group that responded to the survey, and will not form part of any statistical analysis of the data.

Your responses will be completely anonymous and will be kept in a password-protected file on a password-protected computer. Only the researchers (Xander Stander and Michèle Boonzaier) will have access to the data and only aggregate statistics will be reported. The results of this study will be distributed in an unrestricted electronic thesis, as well as in an article published in an accredited scientific journal. Not one of these publications will reveal the identity of any research participant.

There exist no foreseeable risks, discomforts or inconveniences for participants, apart from a slight discomfort to some respondents due to the time that will be spent on completing the questionnaire.

If you have any questions or concerns about the research, please feel free to contact the researcher, Alexander Stander (17258650@sun.ac.za) and/or the Supervisor, Michèle Boonzaier (mib@sun.ac.za).

To save a copy of this text, please take a screenshot, or copy it onto a word document.

I confirm that I have read and understood the information provided for the current study.	YES	NO
	☐	☐
I agree to take part in this survey.	YES	NO
	☐	☐

Annexure B: Ethical Approval

UNIVERSITEIT
STELLENBOSCH
UNIVERSITY

CONDITIONAL APPROVAL GRANTED
REC: Social, Behavioural and Education Research (SBER) - Initial Application Form

8 May 2020

Project number: IPSY-2020-11488

Project title: WORKPLACE INTERNET LEISURE BROWSING, RECOVERY EXPERIENCES AND OCCUPATIONAL WELL-BEING

Dear Mr Alexander Stander

Your REC: Social, Behavioural and Education Research (SBER) - Initial Application Form submitted on 26 March 2020 was reviewed by the REC: Humanities on and approved with certain conditions.

This conditional approval means that the researcher may proceed with the envisaged research provided that they respond or adhere to the stipulations/conditions.

Ethics approval period:

Protocol approval date (Humanities)	Protocol expiration date (Humanities)
8 May 2020	7 May 2023

REC STIPULATIONS/CONDITIONS:

1) How exactly will the participants be invited to complete the survey on social media? Will a flyer be used or some sort of invitational text? The research only provided the informed consent form (ICF). [RESPONSE REQUIRED]

2) The ICF should include information about withdrawal, that this is possible and what will happen to the data of those who choose to withdraw. [RESPONSE REQUIRED]

3) The ICF is very brief with regards to the purpose of this study. Kindly amend. [RESPONSE REQUIRED]

4) The inclusion of the race variable is not adequately justified in this study. If this variable is to be retained, then the survey should include a description to participants as to why information on this variable needs to be collected. [RESPONSE REQUIRED]

HOW TO RESPOND:

Some of these stipulations/conditions may require your response. Where a response is required, you must respond to the REC within **three (3)** months of the date of this letter. Your conditional approval will lapse automatically should your response not be received by the REC within 3 months of the date of this letter.

For instructions on how to respond to these stipulations, please download the FAQ on how to edit your application and follow the steps carefully: HOW TO RESPOND TO REC FEEDBACK.

Where revision to supporting documents is required, please ensure that you replace all outdated documents on your application form with the revised versions.

Please take note of the General Investigator Responsibilities attached to this letter. You may commence with your research after complying fully with these guidelines.

If the researcher deviates in any way from the proposal approved by the REC: Humanities, the researcher must notify the REC of these changes.

Please use your SU project number (11488) on any documents or correspondence with the REC concerning your project.

Please note that the REC has the prerogative and authority to ask further questions, seek additional information, require further modifications, or monitor the conduct of your research and the consent process.